

**APPROVED  
PATHWAY:**

1. Includes minimum of three secondary-level credits.
2. Includes a work-based element.
3. Consists of a sequence:
  - Introductory-level.
  - Technical-level.
  - Application-level courses.
4. Supporting documentation includes Articulation Agreement(s), Certification, Program Improvement Plan and a Program of Study.
5. Technical-level and Application-level courses receive .5 state-weighted funding in an approved CTE pathway.



## LAW, PUBLIC SAFETY, CORRECTIONS AND SECURITY CAREER CLUSTERS DESIGN

# Emergency and Fire Management Services

CIP CODE 43.0299

**INTRODUCTORY LEVEL**

Title	Code	Credit	Title	Code	Credit
*Introduction to Law Public Services and Security (LPSS)	44001	.5 credit	History of Emergency Medical Services	44005	.5 credit

**TECHNICAL LEVEL**

Title	Code	Credit	Title	Code	Credit
<b>First Aid/CPR/EMR</b>	44050	.5 credit	Hazardous Materials for the First Responder	44070	.5 credit
<b>EMT I</b>	44060	1 credit	<b>† Fire Science I †</b>	44100	1 credit
Public Safety Physical Education	44020	1 credit			

**APPLICATION LEVEL**

Title	Code	Credit	Title	Code	Credit
<b>**Fire Science II †</b>	44101	1 credit	<b>Public Safety Telecommunications</b>	44220	.5 credit
<b>**LPSS Internship</b>	44298	.5 credit	<b>**EMT II</b>	44065	1 credit

\* Required for pathway approval.

\*\* Has a prerequisite course. LPSS Internship (44298) must be preceded by EMT or Fire Science.

† First Aid/CPR is included in Fire Science.

Boldface courses may require specialized teacher certification and/or offer professional certification.

## KANSAS STATE CAREER CLUSTER COMPETENCY PROFILE

### Emergency & Fire Management Services Pathway

STUDENT \_\_\_\_\_

Rating Scale:

- 4 - Exemplary Achievement
- 3 - Proficient Achievement
- 2 - Limited Achievement
- 1 - Inadequate Achievement
- 0 - No Exposure

NOTE: Competencies for some courses may adjust periodically to meet industry changes for National/State Certification requirements.

## LAW, PUBLIC SAFETY & SECURITY CLUSTER (C.I.P. 43.0299)

Graduation Date \_\_\_\_\_  
I certify that the student has received training in the areas indicated.

Instructor Signature \_\_\_\_\_

Instructor Signature \_\_\_\_\_

Instructor Signature \_\_\_\_\_

Instructor Signature \_\_\_\_\_

(These Common Career Technical Core Competencies take the place of the 21<sup>st</sup> Century Skills that used to be listed at the end of the Competency Profile.)

### COMMON CAREER TECHNICAL CORE – CAREER READY STANDARDS (To be taught throughout the pathway)

1. Act as a responsible and contributing citizen and employee
2. Apply appropriate academic and technical skills
3. Attend to personal health and financial well-being
4. Communicate clearly, effectively and with reason
5. Consider the environmental, social and economic impacts of decisions
6. Demonstrate creativity and innovation
7. Employ valid and reliable research strategies
8. Utilize critical thinking to make sense of problems and persevere in solving them.
9. Model integrity, ethical leadership and effective management
10. Plan education and career path aligned to personal goals
11. Use technology to enhance productivity
12. Work productively in teams while using cultural/global competence

### COMMON CAREER TECHNICAL CORE – LPSS CLUSTER STANDARDS

(To be taught throughout the pathway)

1. Analyze the nature and scope of the Law, Public Safety, Corrections & Security Career Cluster and the role law, public safety, corrections and security play in society and the economy.
2. Formulate ideas, proposals and solutions to ensure effective and efficient delivery of law, public safety, corrections and/or security services.
3. Assess and implement measures to maintain safe and healthy working conditions in a law, public safety, corrections and/or security environment.
4. Conduct law, public safety, corrections and security work tasks in accordance with employee and employer rights, obligations and responsibilities, including occupational safety and health requirements.
5. Analyze the various laws, ordinances, regulations and organizational rules that apply to careers in law, public safety, corrections and security.
6. Describe various career opportunities and means to those opportunities in each of the Law, Public Safety, Corrections & Security Career Pathways.
7. Demonstrate effective communication skills (e.g., writing, speaking, listening and nonverbal communication) while utilizing communications equipment and platforms common to emergency and fire management services.

8. Manage an incident scene as the first responder using emergency response skills.
9. Utilize up-to-date technology equipment and applications to facilitate the management of emergency and fire management situations
10. Demonstrate an understanding of the objectives and a commitment to the mission of emergency and fire management services.
11. Execute safety procedures and protocols associated with local, state and federal regulations
12. Develop an organizational professional growth plan including the development of team building and leadership skills within the emergency and fire management environment.
13. Describe the legal, regulatory and organizational guidelines governing emergency and fire management services.
14. Compare and contrast the different career fields in fire and emergency management services.
15. Execute protocols for handling emergency situations that range from minor medical and fire emergencies to area-wide incidents.
16. Demonstrate the use and various applications of the equipment commonly used in emergency and fire management services.
17. Implement an appropriate Incident Command System to effectively manage an incident scene.
18. Use common codes and icons to properly handle and transport potentially hazardous substances in fire and medical emergency scenes.
19. Implement public relations plans to enhance public awareness and safety in fire and emergency situations.
20. Describe the elements and issues involved in using the preparedness and response systems available to manage large-scale disasters.
21. Analyze the key functions and techniques of critical infrastructure protection in cases of terrorism and/or natural disasters.

## INTRODUCTORY LEVEL COURSES

### **INTRODUCTION TO LPSS – 44001 (Required for Pathway approval) (.5 credit) (Revised Competencies - 2017)**

1. Use information to locate, comprehend, make inferences, and draw conclusions.
2. Demonstrate verbal, listening, and writing skills appropriately to communicate clearly.
3. Use problem-solving and critical thinking skills to respond to an emergency situation.
4. Analyze the nature and scope of the Law and Public Safety Career Cluster and the role law and public safety play in society and the economy.
5. Understand respect for diversity and cultural differences.
6. Describe the types and functions of agencies related to LPSS.
7. Research and report on different types of occupations available in the fields of LPSS.
8. Describe standards, practices, policies, and procedures common to LPSS workplaces.
9. Examine real world situations to discuss ethics and the appropriate code of professional conduct.
10. Discuss the importance of a background check for employment in an LPSS occupation.
11. Explain the dynamics of integrity as it relates to LPSS.
12. Demonstrate knowledge and understanding of the individual protection granted by the Bill of Rights.
13. Identify the basic freedoms guaranteed by the U.S. Constitution to protect individuals, groups and society.
14. Determine how Courts interpret the law and explain the role of precedent in the legal system.
15. Define the difference between civil and criminal laws in a democratic system.
16. Explain the classifications of crime.
17. Manage the physical and social environment to reduce conflict and promote safety in various settings (i.e. family, work, cyberspace) with the option of obtaining NIMS (National Incident Management Systems) certification 100 and 700.
18. Demonstrate the concepts and techniques used to ensure the security of information-based and intangible assets and differentiate types of cybercrime.
19. Discuss the validity of eye witness accounts.
20. List six types of hazardous materials.
21. Discuss the dangers of contact with hazardous materials.
22. Explain the science of fire as it relates to energy, forms of ignition, and modes of combustion
23. Recognize the physical states of fuel
24. Explain the relationship between oxygen content and life safety

25. Describe the stages of fire development
26. Recognize sign, causes, and effects of rapid fire development
27. Explain the safety considerations for personal protective equipment
28. Explain the purpose of primary assessment
29. Form a general impression
30. Determine Chief Complaint
31. Determine the patient's mental status
32. Assess: Airway, Breathing, Circulation
33. Determine the patient's priority for transport

#### **HISTORY OF EMERGENCY MEDICAL SERVICES - 44005 (.5 credit)**

1. Describe Napoleon's chief physician's plan to develop a prehospital system to triage and transport.
2. Describe the first ambulance services founded in the United States.
3. Discuss the development of the first defibrillator and the first human saved with defibrillation.
4. Discuss the Highway Safety Act of 1966 and how it revolutionized modern day EMS.
5. Describe the Star of Life and its six points.
6. Discuss when and why the 911 system came about and its evolution.
7. Discuss the history of air ambulances.
8. Describe the impact of the television show *Emergency* had on modern EMS.
9. Explain the Emergency Medical Services Systems Act and how it continues to affect EMS today.
10. Describe the importance of professional organizations and their role in advancing EMS.
  - a. NREMT- National Registry of Emergency Medical Technicians
  - b. NAEMT- National Association of Emergency Medical Technicians
  - c. NAEMSE- National Association of Emergency Medical Services Education
11. Describe the evolution of Automatic External Defibrillators
12. Explain the importance of the Omnibus Budget Reconciliation Act.
13. Know what the —*Agenda for the Future*— is and how it will affect the future of EMS.
14. List some of the changes needed to stock ambulances with equipment: Splinting, Cardiac Monitors, Defibrillators, O2 and airway equipment.
15. Describe the differences among the specialty courses available:
  - a. BLS (Basic Life Support)
  - b. ACLS (Advanced Cardiac Life Support)
  - c. PALS (Pediatric Advanced Life Support)
  - d. PHTLS ( )
  - e. AMLS (Advanced Medical Life Support)
  - f. BTLS (Basic Trauma Life Support) (also known as ITLS – International Trauma Life Support).
16. Describe the ten components of the Statewide EMS Technical Assessment program implemented by the national Highway Traffic Safety Administration.
17. Describe how the Ryan White Act affects EMS providers as well as the affect of losing that provision.
18. Discuss the Trauma Care Systems and Development Act.
19. Describe the impact to EMS when Congress did not reauthorize funding under the Trauma Care Systems and Development Act.
20. Explain what HIPAA (Health Information Portability and Accountability Act) is and how to use it appropriately.
21. Discuss how CPR developed from the first chest compression to what we now practice.
22. Describe the first Mobile Intensive Care ambulance.
23. Describe the —EMS for Children program and Emergency Medical Services for Children.
24. Discuss *"Injury in America: A Continuing Public Health Problem"* published by the National Research Council.

## TECHNICAL LEVEL COURSES

### **FIRST AID/CPR/EMR – 44050 (.5 credit)**

#### **(Certification Course, Instructor must hold appropriate certification)**

1. Use protocols in emergency management response when working with an on-scene accident.
2. Use radio equipment, computer technology and public address/warning systems to manage emergency situations.
3. Practice response procedures used to respond to small and catastrophic incidents.
4. List local, state, and federal regulations pertaining to safety issues.
5. Display proper handling of hazardous materials to manage demands of medical, fire, environmental, and technical disasters or situations when hazardous materials are present.
6. List laws, ordinances and organizational rules of conduct to perform assigned duties.
7. List responsibilities of a beginning employee in emergency, fire, and EMT/First Responder services career to understanding the emotional and physical challenges of the field.
8. Define first aid and describe who has the duty to give first aid.
9. Describe where to find a list of items in the first aid kit at your worksite.
10. Explain how to keep yourself safe when giving first aid, including putting on and taking off protective gloves.
11. Explain how to keep the victim from further injury when giving first aid.
12. Explain how to phone your department/agency emergency response number (or 911)
13. Explain how to contact the Emergency Medical Services system in your area.
14. List examples of when you should phone your department/agency emergency response number (or 911) for help.
15. Describe how a first aid rescuer might feel after an emergency.
16. Explain your role in keeping first aid care confidential.
17. Explain which forms your department/agency wants you to fill out after you give first aid.
18. List the signs and symptoms of a victim with a breathing problem and describe what to do.
19. Describe how to relieve choking.
20. Describe the signs and actions for a victim with a bad allergic reaction.
21. Describe how to use an epinephrine pen.
22. Describe several words that a victim may use to describe discomfort, pain, or pressure caused by a heart attack.
23. Explain where the pain or pressure of a heart attack might be located.
24. Explain first aid actions for a victim with chest discomfort, pain, or pressure.
25. Explain fainting and the first actions for it.
26. Describe the signs, symptoms and first aid actions for low blood sugar in a person with diabetes.
27. List the three signs and symptoms of and first aid actions for a stroke.
28. Describe the signs and symptoms of and first aid actions for a person having a seizure.
29. Describe the signs of and first aid actions for shock.
30. Describe the first aid actions for bleeding that you can see and how to stop it.
31. Explain when you should expect bleeding inside the body.
32. Describe first aid actions for bleeding you can't see.
33. List signs of and first aid actions for a victim with head, neck and spine injury.
34. Explain the first aid actions for broken bones and sprains.
35. List the first aid actions for burns.
36. Describe the first aid actions for:
  - A victim of electrocution

- Bites and stings
  - Heat-related emergencies
  - Burns
37. Describe the signs of and first aid actions for cold related emergencies
  38. Explain the steps for giving first aid for poisoning.
  39. Demonstrate CPR techniques for use on:
    - An adult
    - A child
    - An infant
  40. Describe what an Automatic External Defibrillator does.
  41. Explain use situations and operation of an AED
  42. Explain how to give CPR and use an AED

### **EMERGENCY MEDICAL TECHNICIAN I–**

**44060 (1 Credit) (Certification Course, Instructor must hold appropriate certification)**

(Updated competencies 2017)

- Give an overview of the historical events leading to the development of modern Emergency Medical Services (EMS).
- Describe the importance of each of the National Highway Traffic Safety Administration standards for assessing EMS systems.
- Describe the components of an EMS system that must be in place for a patient to receive emergency medical care.
- Compare and contrast the training and responsibilities of EMRs, EMTs, AEMTs, and Paramedics.
- Explain each of the specific areas of responsibility for the EMT.
- Give examples of the physical and personality traits that are desirable for EMTs.
- Describe various job settings that may be available to EMTs.
- Describe the purpose of the National Registry of Emergency Medical Technicians.
- Explain the purpose of quality improvement programs in EMS programs.
- Explain EMT's role in the quality improvement process.
- Explain medical direction as it relates to EMS systems.
- List ways in which research may influence EMT practice.
- Give examples of how EMS providers can play a role in public health.
- Given scenarios, decide how an EMT may demonstrate professional behavior
- Describe health habits that promote physical and mental well-being.
- Given an example of a patient-care situation, determine the appropriate personal protective equipment to prevent exposure to infectious disease.
- Describe proper procedures for hand washing and using alcohol-based hand cleaners.
- Discuss the health concerns related to exposure to hepatitis B, hepatitis C, tuberculosis, and AIDS.
- Access the Centers for Disease Control web site to obtain the latest information on diseases of concern to EMS providers.

- 20 Explain the essential provisions of OSHA, the CDC, the Ryan White CARE Act, and the Ryan White HIV/AIDS Treatment Extension Act of 2009 as they relate to infection control in EMS.
- 21 Describe the indications for use of an N-95 or HEPA respirator.
- 22 Describe the purpose of the tuberculin skin test (TST).
- 23 Give examples of common stressors in EMS work.
- 24 Describe the stages of the stress response, including the effects of each stage on the body.
- 25 Differentiate between acute, delayed, and cumulative stress reactions.
- 26 List lifestyle changes that can be used to manage stress.
- 27 Explain the purpose of critical incident stress management (CISM).
- 28 Given a scenario, recognize a patient's or family member's reaction to death and dying.  
Given a scenario involving death or dying, use effective techniques for interacting with the patient and
- 29 family members.
- 30 List indications of the potential for danger to yourself or others at the scene of an EMS call.
- 31 Outline proper responses to incidents including:
- a. Hazardous material incidents
  - b. Terrorist incidents
  - c. Rescue operations
  - d. Violence
- 32 Given a scenario of an emergency response involving a safety threat, describe actions you should take to protect yourself and other EMS providers.
- 33 Identify with the feelings of a patient who has a communicable disease.
- 34 Promote the importance of safety on EMS calls.
- 35 Describe the factors that you must consider before lifting any patient.
- 36 Use principles of proper body mechanics when lifting and moving patients and other heavy objects.
- 37 Demonstrate the power lift and power grip when lifting a patient-carrying device.
- 38 Follow principles of good body mechanics when reaching, pushing, and pulling.
- 39 Give examples of situations that require emergency, urgent, and non-urgent patient moves.
- 40 Demonstrate emergency, urgent, and non-urgent moves.
- 41 Given several scenarios, select the best patient-lifting and moving devices for each situation.
- 42 Demonstrate proper use of patient-lifting and carrying devices.  
Differentiate between devices to be used to lift and carry patients with and without suspected spinal
- 43 injuries.
- 44 Identify with the feelings of a patient EMS personnel are lifting or carrying.
- 45 Describe your scope of practice as an EMT.
- 46 Differentiate between scope of practice and standard of care.
- 47 Given a variety of scenarios, determine which type of patient consent applies.
- 48 Given a variety of ethical dilemmas, discuss the issues that must be considered in each situation.

- 49 Explain legal and ethical considerations in situations where patients refuse care.
- 50 Discuss the EMT's obligations with respect to advance directives, including do not resuscitate orders.
- 51 Given a variety of scenarios, identify circumstances that may allow a claim of negligence to be established.
- 52 Explain the purpose of Good Samaritan laws.
- 53 Identify situations that would constitute a breach of patient confidentiality.
- 54 Identify situations that would constitute libel or slander.
- 55 Recognize medical identification devices and organ donor status.
- 56 List items that may be considered evidence at a crime scene.  
Describe ways in which you can minimize your impact on evidence while meeting your obligations to care
- 57 for your patient.
- 58 Recognize situations that may legally require reporting to authorities.
- 59 Given a scenario involving an ethical challenge, decide the most appropriate response for an EMT.
- 60 Explain the importance of the proper use of medical terminology.
- 61 Apply definitions of common prefixes, suffixes, and roots to determine the meaning of medical terms.
- 62 Recognize when it is appropriate and when it is inappropriate to use acronyms and abbreviations.  
Give examples of when it is better to use a common or lay term to describe something than it is to use a
- 63 medical term.
- 64 Use anatomical terms of position and direction to describe the location of body structures and position of  
the body.
- 65 Describe the structures and functions of each of the following body systems:
  - a. Musculoskeletal
  - b. Respiratory
  - c. Cardiovascular
  - d. Nervous
  - e. Digestive
  - f. Integumentary
  - g. Endocrine
  - h. Renal
  - i. Male and female reproductive
- 66 Describe the differences in the respiratory anatomy of children as compared to adults.
- 67 Apply understanding of anatomy and physiology to explain the function of the life support chain.
- 68 Define key terms introduced in this chapter.
- 69 Describe the basic roles and structures of body cells.
- 70 Describe the roles of water, glucose, and oxygen in the cell.
- 71 Describe conditions that can threaten cardiopulmonary function.
- 72 Explain how impaired cardiopulmonary function affects the body.
- 73 Discuss the mechanisms the body uses to compensate for impaired cardiopulmonary function.



- 74 Explain the pathophysiology of shock.  
Identify signs and symptoms that indicate the body is attempting to compensate for impaired
- 75 cardiopulmonary function.
- 76 Describe ways in which the body's fluid balance can become disrupted.
- 77 Recognize indications that the body's fluid balance has been disrupted.
- 78 Describe ways in which the nervous system may be impaired.
- 79 Recognize indications that the nervous system may be impaired.
- 80 Describe the effects on the body of:
- a. Endocrine dysfunction
  - b. Digestive system dysfunction
  - c. Immune system dysfunction
- Describe the physical and physiological characteristics, including normal vital signs, for individuals in each
- 81 of the following age groups:
- a. Infant
  - b. Toddler
  - c. Preschool age
  - d. School age
  - e. Adolescent
  - f. Early adult
  - g. Middle adult
  - h. Late adult
- Describe the typical psychosocial characteristics and concerns of individuals at each stage during the life
- 82 span.
- Use knowledge of physical, physiological, and psychosocial development to anticipate the needs and
- 83 concerns of patients of all ages.
- 84 Describe the anatomy and physiology of the upper and lower airways.
- 85 Given a diagram or model, identify the structures of the upper and lower airways.
- 86 Describe common pathophysiologic problems leading to airway obstruction.
- 87 Demonstrate assessment of the airway in a variety of patient scenarios.
- 88 Associate abnormal airway sounds with likely pathophysiologic causes.
- 89 Identify patients who have an open airway but who are at risk for airway compromise.
- 90 Recognize patients who have an inadequate airway.
- 91 Demonstrate manually opening the airway in pediatric and adult medical and trauma patients.
- a. Head-tilt, chin-lift maneuver
  - b. Jaw-thrust maneuver
- 92 Describe the indications, contraindications, use, and potential complications of airway adjuncts, including:

- a. Oropharyngeal airway
- b. Nasopharyngeal airway
- 93 Recognize the indications for suctioning of the mouth and oropharynx.
- 94 Describe risks and limitations associated with suctioning the mouth and oropharynx.
- 95 Demonstrate the following airway management skills:
  - a. Inserting an oropharyngeal airway
  - b. Inserting a nasopharyngeal airway
  - c. Suctioning the mouth and oropharynx
- Describe modifications in airway management for pediatric patients, patients with facial trauma, and
- 96 patients with airway obstruction.
- Explain the physiological relationship between assessing and maintaining an open airway, assessing and
- 97 ensuring adequate ventilation, and assessing and maintaining adequate circulation.
- 98 Describe the mechanics of ventilation.
- 99 Explain mechanisms that control the depth and rate of ventilation.
- Explain the relationships between tidal volume, respiratory rate, minute volume, dead air space, and
- 100 alveolar ventilation.
- 101 Describe the physiology of external and internal respiration.
- 102 Recognize patients at risk for failure of the cardiopulmonary system.
- 103 Differentiate between adequate breathing, inadequate breathing (respiratory failure), and respiratory arrest.
- 104 Use information from the scene size-up and patient assessment to anticipate hypoxia.
- Given a variety of scenarios, differentiate between patients who require artificial ventilation and those who
- 105 do not.
- 106 Identify patients who require administration of supplemental oxygen.
- Discuss the potential negative effects of positive pressure ventilation, and how to minimize complications
- 107 from positive pressure ventilation.
- Demonstrate the following techniques of artificial respiration for pediatric (as applicable) and adult medical
- 108 and trauma patients:
  - a. Mouth-to-mask
  - b. Two-rescuer bag-valve mask (BVM)
  - c. One-rescuer BVM
  - d. Flow-restricted, oxygen-powered ventilation device
  - e. Automatic transport ventilator (as permitted by local protocol)
- 109 Assess the adequacy of artificial ventilations.
- 110 Modify artificial ventilation and oxygen techniques for patients with stomas.
- 111 Discuss considerations for selecting the best device for delivering oxygen for a variety of patient scenarios.
- 112 Explain the ongoing nature of scene size-up beyond the initial moments at the scene.
- Given a scene-arrival scenario, list several examples of potential hazards for which the EMT should
- 113 actively search.
- 114 Describe considerations in establishing a danger zone at the scene of a vehicle collision.

- 115 Recognize indications of possible crime scenes and the potential for violence.  
116 Use information from the scene size-up to make decisions about the use of Standard Precautions to protect  
117 against disease exposure.  
118 Use information from the scene size-up to determine the mechanism of injury or nature of the illness.  
119 Explain the importance of determining the number of patients and the need for additional resources in the  
scene size-up.  
120 Given a number of scenarios, perform a scene size-up, including:  
a. Recognizing potential dangers  
b. Making decisions about body substance isolation  
c. Determining the nature of the illness or mechanism of injury  
d. Determining the number of patients  
e. Determining the need for additional resources  
121 Explain the purpose of the primary assessment.  
122 Discuss the difference in first steps to assessment if the patient is apparently lifeless (C-A-B approach) or if  
the patient has signs of life, including a pulse (A-B-C approach).  
123 Given several scenarios, do the following:  
a. Form a general impression  
b. Determine the chief complaint  
c. Determine the patient's mental status  
d. Assess the airway  
e. Assess breathing  
f. Assess circulation  
g. Determine the patient's priority for transport  
124 Recognize findings in the primary assessment that require immediate intervention.  
125 Differentiate the approach to the primary assessment based on the following:  
a. Mechanism of injury/nature of the illness and level of responsiveness  
b. Patient's age (adult, child, or infant)  
126 Identify the vital signs used in prehospital patient assessment.  
127 Explain the use of vital signs in patient care decision making.  
128 Integrate assessment of vital signs into the patient assessment process, according to the patient's condition  
and the situation.  
129 Discuss the importance of documenting vital signs and the times they were obtained in the patient care  
record.  
130 Demonstrate assessment of:  
a. Pulse  
b. Respirations  
c. Skin  
d. Pupils

- e. Blood pressure
  - f. Oxygen saturation
  - g. Blood glucose
- Integrate assessment of mental status and ongoing attention to the primary assessment while obtaining vital signs.
- 130
- 131 Differentiate between vital signs that are within expected ranges for a given patient and those that are not. Compare and contrast the techniques of assessment and expected vital sign values for pediatric and adult patients.
- 132
- 133 List and explain the components of the secondary assessment.
- 134 List and explain techniques of assessment.
- 135 Discuss the application of critical thinking, judgment, and decision making to the process of assessment.
- 136 Describe body system examinations for:
- a. The respiratory system
  - b. The cardiovascular system
  - c. The nervous system
  - d. The endocrine system
  - e. The gastrointestinal system
  - f. The immune system
  - g. The musculoskeletal system
- 137 Explain how to conduct the secondary assessment of a responsive medical patient.
- 138 Explain how to conduct the secondary assessment of an unresponsive medical patient.
- 139 Explain how to conduct the secondary assessment of a trauma patient with an isolated or minor injury. Explain how to conduct the secondary assessment of a trauma patient who is unstable or has multisystem trauma.
- 140
- 141 Explain how to obtain a history of the present illness/injury from a patient.
- 142 Explain how to obtain a past medical history from a patient.
- 143 Discuss the reason for and methods of observing trends during reassessment. Differentiate between a stable patient and an unstable patient, and discuss how to conduct an appropriate reassessment for each.
- 144
- 145 Relate critical thinking to the assessment and care performed by an EMT.
- 146 Describe the role of communication technology in EMS systems.
- 147 Describe various types of communication devices and equipment used in EMS system communication.
- 148 Explain the role of the Federal Communications Commission as it relates to EMS system communication.
- 149 Discuss how to communicate effectively by radio with dispatch and hospital personnel. Provide a thorough, organized, concise report of pertinent patient information when giving a radio report or requesting orders.
- 150
- 151 Explain the importance of asking for information to be repeated for confirmation and clarification.

- 152 Deliver an organized, complete, concise report of pertinent patient information when giving a verbal report to receiving hospital personnel.
- 153 Demonstrate principles and techniques of effective verbal and nonverbal interpersonal communication.
- 154 Adapt communication principles for effective interaction with patients of various ages and cultures.
- 155 Complete a prehospital care report in the format or formats required by your service.
- 156 Understand legal issues and special situations associated with documentation.
- 157 List the drugs in your scope of practice.
- 158 For each medication you may administer or assist a patient in self-administering, describe the following:
- a. Generic and common trade names
  - b. Indication(s)
  - c. Contraindications
  - d. Side effects and untoward effects
  - e. Form(s)
  - f. Route(s) of administration
- 159 Follow principles of medication administration safety, including the five rights of medication administration.
- 160 Discuss the importance of looking up medications and requesting information from medical direction when needed.
- 161 Identify the type of medical direction (on-line or off-line) required to administer each medication in the scope of practice.
- 162 Describe the characteristics of the oral, sublingual, inhaled, intravenous, intramuscular, subcutaneous, and endotracheal routes of administration.
- 163 Identify special considerations in medication administration related to patients' ages and weights.
- 164 Explain the importance of accurate documentation of drug administration and patient reassessment following drug administration.
- 165 Discuss the importance of having readily available references to identify drugs commonly taken by patients.
- 166 Discuss the steps an EMT may take in assisting with IV therapy.

**FIRE SCIENCE I – 44100 (1 credit) (Combined with Fire Science II, this equals the Fire Fighter I Certification Course) (Certification Course, Instructor must hold appropriate certification)**

**(Revised Competencies 2017)**

Summarize the history of the fire service.

Explain the organizational characteristics, cultural challenges, and cultural strengths that influence the fire service.

Describe the mission of the fire service. *[NFPA® 1001, 5.1.1]*

Describe the organization of fire departments. *[NFPA® 1001, 5.1.1]*

Distinguish among functions of fire companies. *[NFPA® 1001, 5.1.1]*

Summarize primary knowledge and skills the firefighter must have to function effectively. *[NFPA® 1001, 5.1.1, 6.1.1]*

Distinguish among the primary roles of fire service personnel. *[NFPA® 1001, 5.1.1, 6.1.1]*

Describe fire department organizational principles. *[NFPA® 1001, 5.1.1]*

Locate information in departmental documents and standard or code materials. *[NFPA® 1001, 5.1.2]*

Distinguish between fire department SOPs and rules and regulations. *[NFPA® 1001, 5.1.1]*

Explain the ways the fire service may interact with other organizations. *[NFPA® 1001, 5.1.1]*

List the main types of job-related firefighter fatalities, injuries, and illnesses. *[NFPA® 1001, 5.1.1]*

Describe the National Fire Protection Association® standards related to firefighter safety and health. *[NFPA® 1001, 5.1.1]*

Identify Occupational Safety and Health Administration (OSHA) regulations and how they relate to firefighters. *[NFPA® 1001, 5.1.1]*

Summarize the model that supports the concept of risk management. *[NFPA® 1001, 5.1.1]*

Describe fire department safety and health programs. *[NFPA® 1001, 5.1.1]*

Summarize firefighter health awareness issues. *[NFPA® 1001, 5.1.1]*

Summarize safe vehicle operations. *[NFPA® 1001, 5.3.2]*

Summarize guidelines for riding safely on the apparatus. *[NFPA® 1001, 5.3.2]*

Describe ways to help prevent accidents and injuries in fire stations and facilities. *[NFPA® 1001, 5.1.1]*

Explain general guidelines for tool and equipment safety. *[NFPA® 1001, 5.1.1]*

Describe ways to maintain safety in training. *[NFPA® 1001, 5.1.1]*

State the practices a Firefighter I uses for emergency scene preparedness and safety. *[NFPA® 1001, 5.1.1, 5.3.3]*

Summarize general guidelines for scene management including highway incidents, crowd control, and cordoning off emergency scenes. *[NFPA® 1001, 5.1.1, 5.3.3]*

Explain the importance of personnel accountability. *[NFPA® 1001, 5.3.5]*

Respond to an incident, correctly mounting and dismounting an apparatus. *[NFPA® 1001, 5.3.2; Skill Sheet 2-I-1]*

Wearing appropriate PPE, including reflective vest, demonstrate scene management at roadway incidents using traffic and scene control devices. *[NFPA® 1001, 5.3.3; Skill Sheet 2-I-2]*

Explain the procedures for receiving emergency and nonemergency external communications. *[NFPA® 1001, 5.2.1, 5.2.2]*

Describe the information required to dispatch emergency services. *[NFPA® 1001, 5.2.1, 5.2.2, 5.2.3]*

Describe the systems used for internal communications. *[NFPA® 1001, 5.2.1, 5.2.2]*

Explain radio limitations that may impact internal communications. *[NFPA® 1001, 5.2.3]*

Describe radio procedures used for internal communications. *[NFPA® 1001, 5.2.1, 5.2.3]*

Handle emergency and nonemergency calls. *[NFPA® 1001, 5.2.1, 5.2.2 Skill Sheet 3-I-1]*

Use a portable radio for routine and emergency traffic. *[NFPA® 1001, 5.2.1, 5.2.3 Skill Sheet 3-I-2]*

Describe the impact of fire on common building materials. *[NFPA® 1001, 5.3.4, 5.3.10, 5.3.12]*

Explain the impact of fire on construction classifications. *[NFPA® 1001, 5.3.4, 5.3.10, 5.3.12]*

List the main types of occupancy classifications.

Describe the basic construction of building components. *[NFPA® 1001, 5.3.4, 5.3.10, 5.3.12]*

Explain the science of fire as it relates to energy, forms of ignition, and modes of combustion. *[NFPA® 1001, 5.3.11]*

Describe the impact of thermal energy on heat, temperature, and heat transfer. *[NFPA® 1001, 5.3.12]*

Recognize the physical states of fuel. *[NFPA® 1001, 5.3.10]*

Explain the relationship between oxygen and life safety. *[NFPA® 1001, 5.3.11]*

Identify the products of self-sustained chemical reactions. *[NFPA® 1001, 5.3.11]*

Explain the factors that affect fire development. *[NFPA® 1001, 5.3.11]*

Describe the stages of fire development. *[NFPA® 1001, 5.3.11]*

Recognize signs, causes, and effects of rapid fire development. *[NFPA® 1001, 5.3.11]*

Describe the methods through which fire fighting operations can influence fire behavior. *[NFPA® 1001, 5.3.11, 5.3.12]*

Describe the purpose of personal protective equipment. *[NFPA® 1001, 5.1.1, 5.3.3]*

Describe characteristics of each type of personal protective equipment. *[NFPA® 1001, 5.3.2]*

Summarize guidelines for the care of personal protective clothing. *[NFPA® 1001, 5.1.1, 5.3.3, 5.5.1]*

Explain safety considerations for personal protective equipment. *[NFPA® 1001, 5.3.1]*

Identify respiratory hazards. *[NFPA® 1001, 5.3.1]*

Identify types of respiratory protection equipment. *[NFPA® 1001, 5.3.1]*

Describe the limitations of respiratory protection equipment. *[NFPA® 1001, 5.3.1]*

Explain methods for storing respiratory protection equipment. *[NFPA® 1001, 5.5.1]*

Describe general donning and doffing considerations for protective breathing apparatus. *[NFPA® 1001, 5.3.1, 5.3.2]*

Summarize general considerations for protective breathing apparatus inspections and care. *[NFPA® 1001 5.1.1, 5.5.1]*

Summarize safety precautions for refilling SCBA cylinders. *[NFPA® 5.5.1]*

Explain procedures for replacing SCBA cylinders. *[NFPA® 1001 5.3.1]*

Explain safety precautions for SCBA use. *[NFPA® 1001 5.3.1]*

Describe nonemergency and emergency exit indicators. *[NFPA® 5.3.1]*

Describe nonemergency exit techniques. *[NFPA® 1001 5.3.1]*

Demonstrate the method for donning structural personal protective clothing for use at an emergency. *[NFPA® 1001, 5.1.2, 5.3.1, 5.3.2, 5.3.3, Skill Sheet 6-I-1]*

With structural personal protective clothing in place, demonstrate the over-the-head method of donning an SCBA. *[NFPA® 1001 5.3.1, 5.3.2, 5.3.3, Skill Sheet 6-I-2]*

With structural personal protective clothing in place, demonstrate the coat method of donning an SCBA. *[NFPA® 1001 5.3.1, 5.3.2, 5.3.3, Skill Sheet 6-I-3]*

With structural personal protective clothing in place, demonstrate the method for donning an SCBA while seated. *[NFPA® 1001 5.3.1, 5.3.2, 5.3.3, Skill Sheet 6-I-4]*

Doff personal protective equipment, including respiratory protection, and prepare for reuse. *[NFPA® 1001 5.1.2, 5.3.2, 5.3.3, Skill Sheet 6-I-5]*

Demonstrate the steps for inspecting an SCBA. *[NFPA® 1001 5.3.2, 5.5.1; Skill Sheet 6-I-6]*

Demonstrate the steps for cleaning and sanitizing an SCBA. *[NFPA® 1001 5.3.2, 5.5.1; Skill Sheet 6-I-7]*

Demonstrate the method for filling an SCBA cylinder from a cascade system, wearing appropriate PPE, including eye and ear protection. *[NFPA® 1001 5.3.1; Skill Sheet 6-I-8]*

Demonstrate the method for filling an SCBA cylinder from a compressor/purifier system wearing appropriate PPE, including eye and ear protection. *[NFPA® 1001 5.3.1; Skill Sheet 6-I-9]*

Demonstrate the one-person method for replacing an SCBA cylinder. *[NFPA® 1001 5.3.1; Skill Sheet 6-I-10]*

Demonstrate the two-person method for replacing an SCBA cylinder. *[NFPA® 1001 5.3.1; Skill Sheet 6-I-11]*

Explain portable fire extinguisher classifications. *[NFPA® 1001, 5.3.16]*

Describe types of portable fire extinguishers. *[NFPA® 1001, 5.3.16]*

Define the ratings in a portable fire extinguisher rating system. *[NFPA® 1001, 5.3.16]*

Explain the considerations taken when selecting and using portable fire extinguishers. *[NFPA® 1001, 5.3.16]*

Identify procedures used for the inspection, care, and maintenance of portable fire extinguishers. *[NFPA® 1001, 5.3.16, 5.5.1]*

Operate a stored pressure water extinguisher. *[NFPA® 1001, 5.3.16; Skill Sheet 7-I-1]*

Operate a dry chemical (ABC) extinguisher. *[NFPA® 1001, 5.3.16; Skill Sheet 7-I-2]*

Operate a carbon dioxide (CO<sub>2</sub>) extinguisher. *[NFPA® 1001, 5.3.16; Skill Sheet 7-I-3]*



Compare and contrast the characteristics of life safety rope and utility rope. *[NFPA® 1001, 5.3.2]*

Summarize basic guidelines for rope maintenance. *[NFPA® 1001, 5.5.1]*

Explain reasons for placing rope out of service. *[NFPA® 1001, 5.3.20]*

Describe webbing and webbing construction. *[NFPA® 1001, 5.3.20]*

Describe parts of a rope and considerations in tying a knot. *[NFPA® 1001, 5.1.2, 5.3.20]*

Describe knot characteristics and knot elements. *[NFPA® 1001, 5.1.2, 5.3.20]*

Describe characteristics of knots commonly used in the fire service. *[NFPA® 1001, 5.1.2, 5.3.20]*

Select commonly used rope hardware for specific applications. *[NFPA® 1001, 5.1.2, 5.3.20]*

Summarize hoisting safety considerations. *[NFPA® 1001, 5.1.2, 5.3.20]*

Inspect, clean, and store rope. *[NFPA® 1001 5.5.1; Skill Sheet 8-I-1]*

Tie an overhand knot. *[NFPA® 1001 5.3.20; Skill Sheet 8-I-2]*

Tie a bowline knot. *[NFPA® 1001 5.3.20; Skill Sheet 8-I-3]*

Tie a clove hitch. *[NFPA® 1001 5.3.20; Skill Sheet 8-I-4]*

Tie a clove hitch around an object. *[NFPA® 1001 5.3.20; Skill Sheet 8-I-5]*

Tie a handcuff (rescue) knot. *[NFPA® 1001 5.3.20; Skill Sheet 8-I-6]*

Tie a figure-eight knot. *[NFPA® 1001 5.3.20; Skill Sheet 8-I-7]*

Tie a figure-eight bend. *[NFPA® 1001 5.3.20; Skill Sheet 8-I-8]*

Tie a figure-eight on a bight. *[NFPA® 1001 5.3.20; Skill Sheet 8-I-9]*

Tie a figure-eight follow through. *[NFPA® 1001 5.3.20; Skill Sheet 8-I-10]*

Tie a Becket bend. *[NFPA® 1001 5.3.20; Skill Sheet 8-I-11]*

Tie a water knot. *[NFPA® 1001 5.3.20; Skill Sheet 8-I-12]*

Hoist an axe. *[NFPA® 1001 5.1.2, 5.3.20; Skill Sheet 8-I-13]*

Hoist a pike pole. *[NFPA® 1001 5.1.2, 5.3.20; Skill Sheet 8-I-14]*

Hoist a roof ladder. *[NFPA® 1001 5.1.2, 5.3.20; Skill Sheet 8-I-15]*

Hoist a dry hoseline. *[NFPA® 1001 5.1.2, 5.3.20; Skill Sheet 8-I-16]*

Hoist a charged hoseline. *[NFPA® 1001 5.1.2, 5.3.20; Skill Sheet 8-I-17]*

Hoist a power saw. *[NFPA® 1001 5.1.2, 5.3.20; Skill Sheet 8-I-18]*

Summarize the impact of building construction and floor plans on structural search techniques. *[NFPA® 1001, 5.3.9]*

Explain size-up and situational awareness considerations during structural searches. *[NFPA® 1001, 5.3.9]*

Summarize safety guidelines for structural search and rescue. *[NFPA® 1001, 5.3.9]*

Differentiate between primary and secondary search techniques. *[NFPA® 1001, 5.3.9]*

Recognize basic search methods. *[NFPA® 1001, 5.3.9]*

Describe victim removal methods. *[NFPA® 1001, 5.3.5, 5.3.9]*

Explain firefighter survival methods. *[NFPA® 1001, 5.3.1, 5.3.5, 5.3.9]*

Explain what survival actions firefighters can take when needed. *[NFPA® 1001, 5.3.1, 5.3.5]*

Describe the actions of a rapid intervention crew or team (RIC/RIT) when locating a downed firefighter. *[NFPA® 1001, 5.3.5, 5.3.9]*

Demonstrate the procedure for conducting a primary search. *[NFPA® 1001, 5.3.9; Skill Sheet 9-I-1]*

Demonstrate the procedure for conducting a secondary search. *[NFPA® 1001, 5.3.9; Skill Sheet 9-I-2]*

Demonstrate the incline drag. *[NFPA® 1001, 5.3.9; Skill Sheet 9-I-3]*

Demonstrate the webbing drag. *[NFPA® 1001, 5.3.9; Skill Sheet 9-I-4]*

Demonstrate the cradle-in-arms lift/carry — One-rescuer method. *[NFPA® 1001, 5.3.9; Skill Sheet 9-I-5]*

Demonstrate the seat lift/carry — Two-rescuer method. *[NFPA® 1001, 5.3.9; Skill Sheet 9-I-6]*

Demonstrate the extremities lift/carry — Two-rescuer method. *[NFPA® 1001, 5.3.9; Skill Sheet 9-I-7]*

Demonstrate the actions required for transmitting a MAYDAY report. *[NFPA® 1001, 5.2.4, 5.3.5, 5.3.9; Skill Sheet 9-I-8]*

Demonstrate the proper procedures for an SCBA air emergency. *[NFPA® 1001, 5.3.1, 5.3.5, 5.3.9; Skill Sheet 9-I-9]*

Demonstrate the actions required for withdrawing from a hostile environment with a hoseline. *[NFPA® 1001, 5.3.5, 5.3.9; Skill Sheet 9-I-10]*

Demonstrate low profile maneuvers without removing SCBA – Side technique. *[NFPA® 1001, 5.3.1, 5.3.5, 5.3.9; Skill Sheet 9-I-11]*

Perform low profile maneuvers without removing SCBA – SCBA- first technique. *[NFPA® 1001, 5.3.1, 5.3.5, 5.3.9; Skill Sheet 9-I-12]*

Demonstrate the method for breaching an interior wall. *[NFPA® 1001, 5.3.5, 5.3.9; Skill Sheet 9-I-13]*

Demonstrate the steps for disentangling from debris or wires. *[NFPA® 1001, 5.3.5, 5.3.9; Skill Sheet 9-I-14]*

Identify types of emergency scene lighting equipment. *[NFPA® 1001, 5.3.17]*

Explain the basic principles of forcible entry. *[NFPA® 1001, 5.3.4]*

Describe the basic construction of locksets. *[NFPA® 1001, 5.3.4]*

Describe considerations a firefighter must take when using forcible entry tools. *[NFPA® 1001, 5.3.4]*

Indicate steps needed to care for and maintain forcible entry tools. *[NFPA® 1001, 5.5.1]*

Explain the ways to force entry through various types of doors. *[NFPA® 1001, 5.3.4]*

Identify considerations that need to be taken when forcing entry through locks, padlocks, overhead doors, and fire doors. *[NFPA® 1001, 5.3.4]*

Describe forcible entry methods used for windows. *[NFPA® 1001, 5.3.4]*

Explain considerations firefighters must take when forcing entry through miscellaneous types of windows and covers. *[NFPA® 1001, 5.3.4]*

Describe forcible entry methods for breaching walls. *[NFPA® 1001, 5.3.4]*

Explain forcible entry methods for breaching floors. *[NFPA® 1001, 5.3.4]*

Indicate methods for forcing fences and gates. *[NFPA® 1001, 5.3.4]*

Clean, inspect, and maintain hand tools and equipment. *[NFPA® 1001, 5.5.1; Skill Sheet 11-I-1]*

Clean, inspect, and maintain power tools and equipment. *[NFPA® 1001, 5.5.1; Skill Sheet 11-I-2]*

Force entry through an inward-swinging door – Two-firefighter method. *[NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-3]*

Force entry through an inward-swinging door – Cutting the lock out of the door method. *[NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-4]*

Force entry through an outward-swinging door – Removing hinge-pins method. *[NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-5]*

Force entry through an outward-swinging door – Wedge-end method. *[NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-6]*

Force entry using the through-the-lock method. *[NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-7]*

Force entry using the through-the-lock method using the K-tool. *[NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-8]*

Force entry using the through-the-lock method using the A-tool. *[NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-9]*

Force entry through padlocks. *[NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-10]*

Use a bam-bam tool. *[NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-11]*

Cut a padlock with a rotary saw. *[NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-12]*

Force entry through a window (glass pane). *[NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-13]*

Force entry through a double-hung window. *[NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-14]*

Force a Lexan® window using a rotary saw. *[NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-15]*

Force entry through a wood-framed wall. (Type V construction) with hand tools. *[NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-16]*

Force entry through a wood wall. (Type V construction) with a rotary saw or chain saw. *[NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-17]*

Breach a wall using a battering ram. *[NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-18]*

Force entry through a masonry wall with hand tools. *[NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-19]*

Force entry through a metal wall with power tools. *[NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-20]*

Breach a hardwood floor. *[NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-21]*

Bridge a fence with a ladder. *[NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-22]*

Describe different construction types of ground ladders. *[NFPA® 1001, 5.3.6, 5.3.11, 5.3.12]*

Identify the parts of a ladder including markings and labels. *[NFPA® 1001, 5.3.6, 5.3.11, 5.3.12]*

Recognize the types of ladders used in the fire service. *[NFPA® 1001, 5.3.6, 5.3.11, 5.3.12]*

Explain the considerations addressed by ladder inspection, cleaning, and maintenance. *[NFPA® 1001, 5.5.1]*

Describe safety guidelines used when handling ladders. *[NFPA® 1001, 5.3.6, 5.3.11, 5.3.12]*

Explain considerations taken when selecting, lifting, and lowering a ladder. *[NFPA® 1001, 5.3.6, 5.3.11, 5.3.12]*

Describe various methods for ladder carries. *[NFPA® 1001, 5.3.6, 5.3.11, 5.3.12]*

Identify basic considerations and requirements for ground ladder placement. *[NFPA® 1001, 5.3.6, 5.3.11, 5.3.12]*

Describe various methods for ladder raises. *[NFPA® 1001, 5.3.6, 5.3.11, 5.3.12]*

Compare procedures for moving ground ladders. *[NFPA® 1001, 5.3.6, 5.3.11, 5.3.12]*

Explain the methods used to secure ladders. *[NFPA® 1001, 5.3.6, 5.3.11, 5.3.12]*

Describe ladder climbing considerations. *[NFPA® 1001, 5.3.6, 5.3.11, 5.3.12]*

Indicate what methods can be used to work from a ladder. *[NFPA® 1001, 5.3.6, 5.3.11, 5.3.12]*

Explain methods used for assisting a victim down a ladder. *[NFPA® 1001, 5.3.6, 5.3.11, 5.3.12]*

Clean, inspect, and maintain a ladder. *[NFPA® 1001, 5.5.1; Skill Sheet 12-I-1]*

Carry a ladder – One-firefighter low-shoulder method. *[NFPA® 1001, 5.3.6, 5.3.11, 5.3.12; Skill Sheet 12-I-2]*

Carry a ladder – Two-firefighter low-shoulder method. *[NFPA® 1001, 5.3.6, 5.3.11, 5.3.12; Skill Sheet 12-I-3]*

Carry a ladder – Three-firefighter flat-shoulder method. *[NFPA® 1001, 5.3.6, 5.3.11, 5.3.12; Skill Sheet 12-I-4]*

Carry a ladder – Three-firefighter flat-arm's length method. *[NFPA® 1001, 5.3.6, 5.3.11, 5.3.12; Skill Sheet 12-I-5]*

Carry a ladder – Two-firefighter arm's length on-edge method. *[NFPA® 1001, 5.3.6, 5.3.11, 5.3.12; Skill Sheet 12-I-6]*

Tie the halyard. *[NFPA® 1001, 5.3.6, 5.3.11, 5.3.12; Skill Sheet 12-I-7]*

Raise a ladder – One-firefighter method. *[NFPA® 1001, 5.3.6, 5.3.11, 5.3.12; Skill Sheet 12-I-8]*

Raise a ladder – Two-firefighter flat raise. *[NFPA® 1001, 5.3.6, 5.3.11, 5.3.12; Skill Sheet 12-I-9]*

Raise a ladder – Two-firefighter beam raise. *[NFPA® 1001, 5.3.6, 5.3.11, 5.3.12; Skill Sheet 12-I-10]*

Raise a ladder – Three- or four-firefighter flat raise. *[NFPA® 1001, 5.3.6, 5.3.11, 5.3.12; Skill Sheet 12-I-11]*

Deploy a roof ladder – One-firefighter method. *[NFPA® 1001, 5.3.6, 5.3.11, 5.3.12; Skill Sheet 12-I-12]*

Pivot a ladder – Two-firefighter method. *[NFPA® 1001, 5.3.6, 5.3.11, 5.3.12; Skill Sheet 12-I-13]*

Shift a ladder – One-firefighter method. *[NFPA® 1001, 5.3.6, 5.3.11, 5.3.12; Skill Sheet 12-I-14]*

Shift a ladder – Two-firefighter method. *[NFPA® 1001, 5.3.6, 5.3.11, 5.3.12; Skill Sheet 12-I-15]*

Heel a ground ladder. *[NFPA® 1001, 5.3.6, 5.3.11, 5.3.12; Skill Sheet 12-I-16]*

Leg lock on a ground ladder. *[NFPA® 1001, 5.3.6, 5.3.11, 5.3.12; Skill Sheet 12-I-17]*

Assist a conscious victim down a ground ladder. *[NFPA® 1001, 5.3.9; Skill Sheet 12-I-18]*

Assist an unconscious victim down a ground ladder. *[NFPA® 1001, 5.3.9; Skill Sheet 12-I-19]*

#### **HAZARDOUS MATERIALS FOR THE FIRST RESPONDER– 44070 (.5 credit)**

**(New Course 2017) A Technical Level course designed to provide students with information for awareness, recognition, & protocols of hazardous materials, needed for employment in Law, Public Safety & Security occupations.**

- 1 Obtain NIMS 700a Certification
- 2 Obtain NIMS 200b Certification
- 3 Obtain NIMS 100b Certification
- 4 Distinguish between hazardous materials incidents and other emergencies
- 5 Discuss the roles of Awareness-level personnel and Operations-Level responders
- 6 Describe the various types of hazardous materials hazards
- 7 Explain each of the routes of entry
- 8 Discuss hazardous materials incident statistics
- 9 Identify the seven clues to the presence of hazardous materials
- 10 Discuss the occupancy types, locations, and pre-incident surveys that may indicate hazardous materials

- 11 Describe the container shapes that may contain hazardous materials
- 12 Identify placards, labels, and markings that designate the presence of hazardous materials
- 13 Describe the other markings and colors that may indicate the presence of hazardous materials
- 14 Explain the written resources available to indicate the presence of hazardous materials
- 15 Discuss the limitations of using the senses to determine the presence of hazardous materials
- 16 Discuss the limitations of using the senses to determine the presence or absence of hazardous materials
- 17 Discuss monitoring and detection devices
- 18 Analyze scenarios to detect the presence of hazardous materials
- 19 Interpret representative shipping papers
- 20 Interpret a safety data sheet
- 21 Explain how to identify terrorist attacks and illicit laboratories
- 22 Discuss predetermined procedures and emergency response plans
- 23 Describe notification requirements
- 24 Discuss the use of the emergency response guidebook
- 25 Obtain information about hazardous materials using the ERG
- 26 Describe isolation and discuss denial of entry
- 27 Discuss terrorist incidents
- 28 Discuss the three states of matter
- 29 Discuss the flammability of various hazardous materials
- 30 Describe vapor pressure
- 31 Explain boiling point
- 32 Define melting point, freezing point and sublimation
- 33 Describe vapor density
- 34 Define solubility and miscibility
- 35 Discuss specific gravity
- 36 Define persistence
- 37 Define reactivity and describe the reactivity triangle
- 38 Describe the general hazardous materials behavior model
- 39 Describe incident priorities
- 40 Discuss various incident management systems
- 41 Identify communication procedures and guidelines for use at hazardous materials incidents
- 42 Describe each of the steps of the basic problem-solving formula
- 43 Discuss isolation and scene control
- 44 Explain the notification process
- 45 Discuss protection of responders, the public, the environment, and property

- 46 Describe recovery and termination
- 47 Define terrorism
- 48 Distinguish between a terrorist attack and a routine emergency
- 49 Discuss terrorist tactics and types of attacks
- 50 Discuss explosive attacks
- 51 Discuss chemical attacks
- 52 Discuss biological attacks
- 53 Discuss radiological and nuclear attacks
- 54 Identify hazards of illegal haz mat dumps
- 55 Describe proper evidence preservation
- 56 Discuss hazardous materials during and after disasters
- 57 Discuss respiratory protection
- 58 Discuss protective clothing ensembles
- 59 Don and doff different types of personal protective equipment
- 60 Discuss inspection, storage, testing, and maintenance of PPE  
Given hazardous materials scenarios, determine proper PEE for each incident and report and document
- 61 the decision
- 62 Define decontamination
- 63 Identify various decontamination methods
- 64 Discuss general guidelines for decon operations
- 65 Describe the different types of victims that may receive decontamination.
- 66 Describe emergency decontamination
- 67 Perform emergency decontamination
- 68 Describe technical decontamination
- 69 Set up and implement a technical decontamination corridor and undergo decontamination
- 70 Perform technical decontamination on a non-ambulatory victim
- 71 Discuss mass decontamination
- 72 Determine the effectiveness of decontamination operations
- 73 Explain how to implement decontamination
- 74 Describe each of the various spill control tactics
- 75 Perform absorption, damming, diking, diversion, retention operations
- 76 Perform vapor dispersion
- 77 Perform dilution operations
- 78 Discuss leak control
- 79 Explain fire control
- 80 Discuss air monitoring and sampling

- 81 Discuss concentration and exposure limits
- 82 Discuss rescue operations
- 83 Describe various rescue methods
- 84 Discuss recovery operations
- 85 Discuss various hazards at crimes involving hazardous materials or weapons of mass destruction
- 86 Discuss the first responder's role in investigation
- 87 Describe the different response phases at criminal hazardous materials/ WMD incidents
- 88 Explain the FBI's twelve-step process for collecting evidence
- 89 Demonstrate evidence preservation and sampling
- 90 Discuss general hazards at illicit laboratories
- 91 Identify and avoid booby traps at illicit laboratories
- 92 Discuss drug labs
- 93 Describe chemical agent labs
- 94 Describe explosive labs
- 95 Discuss biological laboratories
- 96 Discuss operations at illicit labs
- 97 Explain remediation of illicit labs

**PUBLIC SAFETY PHYSICAL EDUCATION– 44020 (1 credit) A technical level course designed to assist students enrolled in a LPSS Pathway maintain a healthy lifestyle and prepare to take the CPAT Certification Test  
(New Course 2017)**

Demonstrate competency in a variety of motor skills and movement patterns

4 3 2 1 0 1. Demonstrate competency in two or more lifetime activities (weightlifting, outdoor pursuits, self-defense)

4 3 2 1 0 2. Demonstrate competency in two or more specialized skills in health-related fitness activities

Apply knowledge of concepts, principles, strategies and tactics related to movement and performance

4 3 2 1 0 3. Utilize the terminology associated with exercise and participation in selected individual-performance activities

4 3 2 1 0 4. Demonstrate movement concepts and principles (e.g., force, motion, rotation) to analyze and improve performance of self and/or others in a selected skill

Demonstrate knowledge and skills to achieve and maintain a health-enhancing level of physical activity and fitness

4 3 2 1 0 5. Discuss the benefits of a physically active lifestyle as it relates to college/career productivity

4 3 2 1 0 6. Investigate the relationships among physical activity, nutrition and body composition

4 3 2 1 0 7. Identify issues associated with exercising in heat, humidity, and cold

4 3 2 1 0 8. Apply rates of perceived exertion and pacing

4 3 2 1 0 9. Create a plan, train for, and participate in an event with a focus on physical activity (e.g., CPAT and Cooper Fitness training)

4 3 2 1 0 10. Demonstrate appropriate technique in resistance-training machines and free weights

4 3 2 1 0 11. Relate physiological responses to individual levels of fitness and nutritional balance

4 3 2 1 0 12. Identify the different energy systems used in a selected physical activity (e.g., ATP-PC, anaerobic/glycolysis, aerobic)

4 3 2 1 0 13. Identify and utilize types of strength exercises (isometric, concentric, eccentric) and stretching exercises (static, PNF, dynamic) for personal fitness development (e.g., strength, endurance, range of motion)



- 4 3 2 1 0 14. Calculate target heart rate and apply HR information to personal fitness plan
- 4 3 2 1 0 15. Adjust pacing to keep heart rate in the target zone, using available technology (e.g., pedometer, heart rate monitor), to self-monitor aerobic intensity
- 4 3 2 1 0 16. Design a fitness program, including all components of health-related fitness, for a college student and an employee in the learner's chosen field of work
- 4 3 2 1 0 17. Analyze the components of skill-related fitness in relation to life and career goals, and design an appropriate fitness program for those goals
- 4 3 2 1 0 18. Design and implement a nutrition plan to maintain an appropriate energy balance for a healthy, active lifestyle
- 4 3 2 1 0 19. Identify stress-management strategies (e.g., mental imagery, relaxation techniques, deep breathing, aerobic exercise, meditation) to reduce stress

## APPLICATION LEVEL COURSES

**FIRE SCIENCE II - 44101 (1 credit) (Combined with Fire Science I, this equals the Fire Fighter I Certification Course) (Certification Course, Instructor must hold appropriate certification) (Updated Competencies 2017)**

Explain the ways water supply system components are used by firefighters. *[NFPA® 1001, 5.3.15]*

Describe types of fire hydrants and hydrant markings. *[NFPA® 1001, 5.3.15]*

Explain fire hydrant operation and inspection considerations. *[NFPA® 1001, 5.3.15]*

Explain alternative water supply sources and methods of access. *[NFPA® 1001, 5.3.15]*

Describe methods used for rural water supply operations. *[NFPA® 1001, 5.3.15]*

Operate a hydrant. *[NFPA® 1001, 5.3.15; Skill Sheet 14-I-1]*

Make soft-sleeve and hard-suction hydrant connections. *[NFPA® 1001, 5.3.15; Skill Sheet 14-I-2]*

Connect and place a hard-suction hose for drafting from a static water source. *[NFPA® 1001, 5.3.15; Skill Sheet 14-I-3]*

Deploy a portable water tank. *[NFPA® 1001, 5.3.15; Skill Sheet 14-I-4]*

Explain basic fire hose characteristics. *[NFPA® 1001, 5.3.8, 5.3.10]*

Describe different causes of and prevention methods for hose damage. *[NFPA® 1001, 5.5.2]*

Identify basic inspection, care, and maintenance methods for fire hose. *[NFPA® 1001, 5.5.2]*

Compare various uses for hose appliances and tools. *[NFPA® 1001, 5.3.8, 5.3.10]*

Describe basic hose rolls. *[NFPA® 1001, 5.5.2]*

Explain basic hose loads and finishes. *[NFPA® 1001, 5.5.2]*

Compare various methods to make preconnected hose loads for attack lines. *[NFPA® 1001, 5.5.2]*

Explain the methods used for supply hose lays. *[NFPA® 1001, 5.3.8, 5.3.15]*

Recognize different methods for handling hoselines. *[NFPA® 1001, 5.3.8, 5.3.10]*

Describe methods for advancing hoselines in various ways. *[NFPA® 1001, 5.3.8, 5.3.10]*

List the considerations that can impact operating attack hoselines. *[NFPA® 1001, 5.3.8, 5.3.10]*

Couple and uncouple a hose. *[NFPA® 1001, 5.3.10; Skill Sheet 15-I-1]*

Inspect and maintain a fire hose. *[NFPA® 1001, 5.5.2; Skill Sheet 15-I-2]*

Make a straight hose roll. *[NFPA® 1001, 5.5.2; Skill Sheet 15-I-3]*

Make a donut hose roll. *[NFPA® 1001, 5.5.2; Skill Sheet 15-I-4]*

Make the flat hose load. *[NFPA® 1001, 5.5.2; Skill Sheet 15-I-5]*

Make the accordion hose load. *[NFPA® 1001, 5.5.2; Skill Sheet 15-I-6]*

Make the horseshoe hose load. *[NFPA® 1001, 5.5.2; Skill Sheet 15-I-7]*

Make a finish. *[NFPA® 1001, 5.5.2; Skill Sheet 15-I-8]*

Make the preconnected flat hose load. *[NFPA® 1001, 5.5.2; Skill Sheet 15-I-9]*

Make the triple layer hose load. *[NFPA® 1001, 5.5.2; Skill Sheet 15-I-10]*

Make the minuteman hose load. *[NFPA® 1001, 5.5.2; Skill Sheet 15-I-11]*

Make a hydrant connection from a forward lay. *[NFPA® 1001, 5.5.2; Skill Sheet 15-I-12]*

Make the reverse hose lay. *[NFPA® 1001, 5.5.2; Skill Sheet 15-I-13]*

Advance a hose load. *[NFPA® 1001, 5.3.10; Skill Sheet 15-I-14]*

Deploy a wye-equipped hose during a reverse hose lay. *[NFPA® 1001, 5.3.10; Skill Sheet 15-I-15]*

Advance a charged hoseline using the working line drag method. *[NFPA® 1001, 5.3.10; Skill Sheet 15-I-16]*

Advance a line into a structure. *[NFPA® 1001, 5.3.10; Skill Sheet 15-I-17]*

Advance a line up and down an interior stairway. *[NFPA® 1001, 5.3.10; Skill Sheet 15-I-18]*

Connect to a stairway standpipe connection and advance an attack hoseline onto a floor. *[NFPA® 1001, 5.3.10; Skill Sheet 15-I-19]*

Advance an uncharged line up a ladder into a window. *[NFPA® 1001, 5.3.10; Skill Sheet 15-I-20]*

Advance a charged line up a ladder into a window. *[NFPA® 1001, 5.3.10; Skill Sheet 15-I-21]*

Operate a charged attack line from a ladder. *[NFPA® 1001, 5.3.10; Skill Sheet 15-I-22]*

Operate a small hoseline – One-firefighter method. *[NFPA® 1001, 5.3.10; Skill Sheet 15-I-23]*

Operate a large hoseline for exposure protection – One-firefighter method. *[NFPA® 1001, 5.3.10; Skill Sheet 15-I-24]*

Operate a large hoseline – Two-firefighter method. *[NFPA® 1001, 5.3.15; Skill Sheet 15-I-25]*

Extend a hoseline. *[NFPA® 1001, 5.3.10; Skill Sheet 15-I-26]*

Replace a burst hoseline. *[NFPA® 1001, 5.3.10; Skill Sheet 15-I-27]*

Explain the way vaporization and steam relate to the extinguishing properties of water. *[NFPA® 1001, 5.3.10]*

Identify the factors that create pressure loss or gain. *[NFPA® 1001, 5.3.10]*

Describe the impact water hammer has on fire streams. *[NFPA® 1001, 5.3.10]*

Explain fire stream patterns and their possible limiting factors. *[NFPA® 1001, 5.3.10]*

Describe the three types of fire stream nozzles. *[NFPA® 1001, 5.3.10]*

Compare the different types of nozzle control valves. *[NFPA® 1001, 5.3.10]*

Describe the factors in operating and maintaining handline nozzles. *[NFPA® 1001, 5.3.10]*

Operate a fog-stream nozzle. *[NFPA® 1001, 5.3.10; Skill Sheet 16-I-1]*

Operate a broken stream nozzle. *[NFPA® 1001, 5.3.10; Skill Sheet 16-I-2]*

Operate a solid stream nozzle. *[NFPA® 1001, 5.3.10; Skill Sheet 16-I-3]*

Describe initial factors to consider when suppressing structure fires. *[NFPA® 1001, 5.3.8, 5.3.10]*

Summarize considerations taken when making entry. *[NFPA® 1001, 5.3.8, 5.3.10]*

Describe direct attack, indirect attack, combination attack, and gas cooling techniques. *[NFPA® 1001, 5.3.8, 5.3.10]*

Describe safety considerations that must be identified for upper level structure fires. *[NFPA® 1001, 5.3.8, 5.3.10]*

Explain actions taken when attacking belowground structure fires. *[NFPA® 1001, 5.3.8, 5.3.10]*

Discuss methods of fire control through exposure protection and controlling building utilities. *[NFPA® 1001, 5.3.18]*

Describe steps taken when supporting fire protection systems at protected structures. *[NFPA® 1001, 5.3.8, 5.3.10, 5.3.14]*

Explain considerations taken when deploying, supplying, and staffing master stream devices. *[NFPA® 1001, 5.3.8]*

Describe situations that may require suppression of Class C fires. *[NFPA® 1001, 5.3.8, 5.3.10]*

Identify hazards associated with suppressing Class C fires. *[NFPA® 1001, 5.3.8, 5.3.10]*

Describe actions associated with suppressing Class D fires. *[NFPA® 1001, 5.3.8, 5.3.10]*

Explain actions taken when suppressing a vehicle fire. *[NFPA® 1001, 5.3.7]*

Compare methods used to suppress fires in stacked and piled materials, small unattached structures, and trash containers. *[NFPA® 1001, 5.3.8]*

Summarize the main influences on ground cover fire behavior. *[NFPA® 1001, 5.3.19]*

Compare types of ground cover fires. *[NFPA® 1001, 5.3.19]*

Describe elements that influence ground cover fire behavior. *[NFPA® 1001, 5.3.19]*

Identify the parts of a ground cover fire. *[NFPA® 1001, 5.3.19]*

Describe protective clothing and equipment used in fighting ground cover fires. *[NFPA® 1001, 5.3.19]*

Describe methods used to attack ground cover fires. *[NFPA® 1001, 5.3.19]*

Summarize safety principles and practices when fighting ground cover fires. *[NFPA® 1001, 5.3.19]*

Attack a structure fire using a direct, indirect, or combination attack. *[NFPA® 1001, 5.3.8, 5.3.10, 5.3.13; Skill Sheet 17-I-1]*

Attack a structure fire above, below, and at ground level – Interior attack. *[NFPA® 1001, 5.3.8, 5.3.10, 5.3.13; Skill Sheet 17-I-2]*

Turn off building utilities. *[NFPA® 1001, 5.3.18; Skill Sheet 17-I-3]*

Connect supply fire hose to a fire department connection. *[NFPA® 1001, 5.3.8, 5.3.10, 5.3.14; Skill Sheet 17-I-4]*

Operate a sprinkler system control valve. *[NFPA® 1001, 5.3.8, 5.3.10, 5.3.14, 5.3.15; Skill Sheet 17-I-5]*

Stop the flow of water of an activated sprinkler. *[NFPA® 1001, 5.3.8, 5.3.10, 5.3.14; Skill Sheet 17-I-6]*

Deploy and operate a portable master stream device. *[NFPA® 1001, 5.3.8; Skill Sheet 17-I-7]*

Attack a passenger vehicle fire. *[NFPA® 1001, 5.3.7; Skill Sheet 17-I-8]*

Attack a fire in stacked or piled materials. *[NFPA® 1001, 5.3.8; Skill Sheet 17-I-9]*

Attack a fire in a small unattached structure. *[NFPA® 1001, 5.3.8; Skill Sheet 17-I-10]*

Extinguish a fire in a trash container. *[NFPA® 1001, 5.3.8; Skill Sheet 17-I-11]*

Attack a ground cover fire. *[NFPA® 1001, 5.3.19; Skill Sheet 17-I-12]*

Explain the philosophy of loss control. *[NFPA® 1001, 5.3.14]*

Describe the ways preincident planning impacts loss control. *[NFPA® 1001, 5.3.14]*

Determine appropriate salvage procedures. *[NFPA® 1001, 5.3.14]*

Compare and contrast different types of salvage covers. *[NFPA® 1001, 5.3.14]*

Explain ways to fold, roll, spread, and improvise with salvage covers. *[NFPA® 1001, 5.3.14]*

Describe ways to cover openings during salvage operations. *[NFPA® 1001, 5.3.14]*

Explain methods used to maintain fire safety during overhaul. *[NFPA® 1001, 5.3.13]*

Describe factors that influence locating hidden fires. *[NFPA® 1001, 5.3.10, 5.3.13]*

Identify different overhaul procedures. *[NFPA® 1001, 5.3.13]*

Indicate the ways a thermal imager can be used during overhaul. *[NFPA® 1001, 5.3.13]*

Clean, inspect, and repair a salvage cover. *[NFPA® 1001, 5.3.14; Skill Sheet 18-I-1]*

Roll a salvage cover for a one-firefighter spread. *[NFPA® 1001, 5.3.14; Skill Sheet 18-I-2]*

Spread a rolled salvage cover — One-firefighter method. *[NFPA® 1001, 5.3.14; Skill Sheet 18-I-3]*

Fold a salvage cover for a one-firefighter spread. *[NFPA® 1001, 5.3.14; Skill Sheet 18-I-4]*

Spread a folded salvage cover — One-firefighter method. *[NFPA® 1001, 5.3.14; Skill Sheet 18-I-5]*

Fold a salvage cover for a two-firefighter spread. *[NFPA® 1001, 5.3.14; Skill Sheet 18-I-6]*

Spread a folded salvage cover — Two-firefighter balloon throw. *[NFPA® 1001, 5.3.14; Skill Sheet 18-I-7]*

Construct a water chute without pike poles. *[NFPA® 1001, 5.3.14; Skill Sheet 18-I-8]*

Construct a water chute with pike poles. *[NFPA® 1001, 5.3.14; Skill Sheet 18-I-9]*

Construct a catchall. *[NFPA® 1001, 5.3.14; Skill Sheet 18-I-10]*

Make a chute and attach it to a catchall. *[NFPA® 1001, 5.3.14; Skill Sheet 18-I-11]*

Locate and extinguish hidden fires. *[NFPA® 1001, 5.3.10, 5.3.13; Skill Sheet 18-I-12]*

Explain ways to recognize obvious signs of the area of origin. *[NFPA® 1001, 5.3.8, 5.3.14]*

Describe the relationship between fire cause classifications and cause determination. *[NFPA® 1001, 5.3.8, 5.3.13]*

Recognize signs of arson. *[NFPA® 1001, 5.3.13]*

Describe the importance of preserving evidence. *[NFPA® 1001, 5.3.8, 5.3.14]*

Explain techniques for preserving evidence. *[NFPA® 1001, 5.3.8, 5.3.14]*

Explain the steps taken during fire and life safety program development. *[NFPA® 1001, 5.1.1]*

Describe the components involved in fire and life safety program delivery. *[NFPA® 1001, 5.1.1]*

Explain the impact of safety hazards, messages, and target audiences on creating fire and life safety education programs. *[NFPA® 1001, 5.1.1]*

Indicate ways to identify and prevent firesetter development. *[NFPA® 1001, 5.1.1]*

Describe the role of a Firefighter I in enforcing fire and life safety codes. *[NFPA® 1001, 5.1.1]*

Describe the roles the fire service may take in providing emergency medical care. *[NFPA® 1001, 4.3]*

Summarize patient confidentiality requirements. *[NFPA® 1001, 4.3]*

Distinguish among commonly encountered communicable diseases. *[NFPA® 1001, 4.3]*

Summarize immunization considerations for first responders. *[NFPA® 1001, 4.3]*

Explain the importance of body substance isolation (BSI). *[NFPA® 1001, 4.3]*

Explain actions taken for basic patient assessment. *[NFPA® 1001, 4.3]*

Compare and contrast CPR techniques for adults, children, and infants. *[NFPA® 1001, 4.3]*

Explain when to administer and when to discontinue CPR. *[NFPA® 1001, 4.3]*

Describe basic types of external bleeding. *[NFPA® 1001, 4.3]*

Explain the use of direct pressure and elevation to control external bleeding. *[NFPA® 1001, 4.3]*

Describe the signs and symptoms of internal bleeding. *[NFPA® 1001, 4.3]*

Describe the role that recognizing the types, signs, and symptoms of shock plays in shock management. *[NFPA® 1001, 4.3]*

Recognize introductory information regarding hazardous materials. *[NFPA® 472, 4.2.1]*

Explain the six types of hazardous materials hazards. *[NFPA® 472, 4.4.1, 5.2.2, 5.2.3]*

Describe routes of entry for hazardous materials. *[NFPA® 472, 4.4.1]*

Describe the physical properties of hazardous materials. *[NFPA® 472, 5.2.3]*

Explain the six stages of the General Emergency Behavior Model (GEBMO) used to describe typical hazardous materials events. *[NFPA® 472, 5.2.3]*

Identify the seven categories of clues to the presence of hazardous materials/weapons of mass destruction. *[NFPA® 472, 4.2.1, 4.2.2, 5.2.1, 5.2.1.1, 5.2.1.2, 5.2.1.3, 5.2.1.1.1, 5.2.1.1.2, 5.2.1.1.3, 5.2.1.1.4, 5.2.1.1.5, 5.2.1.1.6, 5.2.1.3.3, 5.2.2, 5.2.1.2.1, 5.2.1.2.2, 5.2.1.3.1, 5.2.1.3.2]*

Describe the written resources used to identify hazardous materials. *[NFPA® 472, 4.2.2, 5.2.2]*

Explain the ways to safely use the five senses, along with monitoring and detection equipment, to detect the presence of hazardous materials. *[NFPA® 472, 4.2.1, 5.2.4]*

Identify common indicators of terrorist attacks. *[NFPA® 472, 4.2.1, 5.2.1.6, 5.2.3]*

Describe the common indicators and types of illicit laboratories. *[NFPA® 472, 4.2.1]*

Explain ways to protect against secondary attacks and booby traps. *[NFPA® 472, 4.2.1, 5.3.1]*

Summarize first responder roles at haz mat/WMD incidents. [NFPA® 472, 4.4.1; 5.4.3]

Summarize incident priorities for haz mat/WMD incidents.

Explain the management structure used for haz mat/WMD incidents. [NFPA® 472, 4.2.1, 4.4.1, 5.2.2, 5.4.3]

Explain the considerations that must be taken into account during the analysis stage of haz mat/WMD incidents. [NFPA® 472, 5.2.1; 5.2.1.4; 5.2.4; 5.3.1, 5.4.3]

Describe the steps used for planning the appropriate response at haz mat/WMD incidents. [NFPA® 472, 5.3.1; 5.3.2]

Describe the process for evaluating and communicating the progress at haz mat/WMD events. [NFPA® 472, 5.5.1; 5.5.2]

Explain how the *Emergency Response Guidebook (ERG)* is used at haz mat/WMD incidents. [NFPA® 472, 4.4.1; 4.2.3; 5.2.1.5]

Summarize the role of emergency response centers during haz mat/WMD incidents. [NFPA® 472, 5.2.2]

Explain the considerations that must be taken when choosing personal protective equipment at haz mat/WMD incidents. [NFPA® 472, 5.3.3; 6.2.3.1]

Distinguish among the four levels of EPA defined protection. [NFPA® 472, 6.2.3.1]

Describe Mission-Oriented Protective Posture (MOPP) ensembles. [NFPA® 472, 6.2.3.1]

Describe the selection factors that must be considered when selecting personal protective equipment at haz mat/WMD incidents. [NFPA® 472, 6.2.3.1; 6.6.3.2]

Explain safety and emergency procedures used for personnel wearing protective clothing. [NFPA® 472, 6.2.4.1]

Explain proper procedures for PPE inspection, storage, testing, and maintenance. [NFPA® 472, 5.4.4; 6.2.4.1; 6.2.5.1]

Describe the techniques used for isolation and scene control. [NFPA® 472, 4.4.1]

Identify basic notification considerations at haz mat/WMD incidents. [NFPA® 472, 4.4.2; 5.2.2; 5.4.3]

Describe methods that help ensure the protection of responders during haz mat/WMD incidents. [NFPA® 472, 6.2.4.1; 5.4.4; 5.2.4; 5.5.1; 5.5.2; 5.4.3]

Describe methods that help ensure the protection of the public during haz mat/WMD incidents. [NFPA® 472, 5.4.1; 4.4.1]

Describe the considerations and limitations of emergency and technical decontamination. [NFPA® 472, 5.3.4; 5.2.3; 5.4.1; 5.3.2; 6.2.3.1; 6.2.4.1]

Tell what rescue actions can be taken at haz mat/WMD incidents by personnel without specialized training. [NFPA® 472, 5.3.1]

Explain the strategic goal of spill control and confinement. [NFPA® 472, 6.6.3.1]

Describe methods used to complete the strategic goal of leak control and containment. [NFPA® 472, 6.6.3.1; 6.6.4.1]

Summarize the actions necessary when an incident is suspected to involve terrorist activity. [NFPA® 472, 4.4.1]

Explain how to preserve crime scene evidence. [NFPA® 472, 5.4.2]

Explain the goals for the recovery and termination phases of haz mat/WMD incidents.

Obtain information about a hazardous material using the *Emergency Response Guidebook (ERG)*. [NFPA® 472, 4.4.1; 4.2.3, Skill Sheet 24-I-1]

Perform emergency decontamination. [NFPA® 472, 5.3.4, Skill Sheet 24-I-2]

Perform absorption. [NFPA® 472, 6.6.3.1; Skill Sheet 24-I-3]

Perform adsorption. [NFPA® 472, 6.6.3.1; Skill Sheet 24-I-4]

Perform diking operations. [NFPA® 472, 6.6.3.1; Skill Sheet 24-I-5]

Perform damming operations. [NFPA® 472, 6.6.3.1; Skill Sheet 24-I-6]

Perform diversion operations. [NFPA® 472, 6.6.3.1; Skill Sheet 24-I-7]

Perform retention operations. [NFPA® 472, 6.6.3.1; Skill Sheet 24-I-8]

Perform dilution operations. [NFPA® 472, 6.6.3.1; Skill Sheet 24-I-9]

Perform vapor dispersion. [NFPA® 472, 6.6.3.1; Skill Sheet 24-I-10]

Perform a remote valve shutoff. [NFPA® 472, 6.6.3.1; 6.6.4.1; Skill Sheet 24-I-11]

## **EMERGENCY MEDICAL TECHNICIAN II –**

**#44065 (1 Credit) (Certification Course, Instructor must hold appropriate certification)**

**(New Course 2017) An Application Level course that is a continuation the EMT I Technical Level course, designed to further the students' knowledge and skills needed to attain EMT certification.**

- 1 Describe the anatomy and physiology of respiration.
- 2 Differentiate between adequate and inadequate breathing based on the rate, rhythm, and quality of breathing.
- 3 Discuss differences between the adult and pediatric airways and respiratory systems.
- 4 Recognize signs of inadequate breathing in pediatric patients.
- 5 Provide supplemental oxygen and assisted ventilation as needed for patients with inadequate breathing.
- 6 Assess the effectiveness of artificial ventilation.
- 7 Recognize the patient with difficulty breathing.
- 8 Given a scenario, perform an assessment and take the history of a variety of patients with difficulty breathing.
- 9 Recognize abnormal breath sounds, including wheezes, crackles, rhonchi, and stridor.  
Assist a patient with administration of a prescribed bronchodilator by inhaler or small-volume nebulizer, as
- 10 permitted by medical direction.
- 11 Use CPAP to assist the patient with difficulty breathing, as permitted by medical direction.
- 12 Recognize the indications, contraindications, risks, and side effects of CPAP.
- 13 Describe the pathophysiology, signs, and symptoms of:
  - a. COPD
  - b. Asthma
  - c. Pulmonary edema



- d. Pneumonia
  - e. Spontaneous pneumothorax
  - f. Pulmonary embolism
  - g. Epiglottitis
  - h. Cystic fibrosis
  - i. Viral respiratory infections
- 14 Given a scenario, provide treatment for a variety of patients with difficulty breathing.
  - 15 Describe the anatomy and physiology of the cardiovascular system.
  - 16 Define acute coronary syndrome and discuss its most common signs and symptoms.
  - 17 Discuss the management of a patient with acute coronary syndrome.  
Discuss the indications, contraindications, dosage, and administration of nitroglycerin to a patient with chest pain.
  - 18 Discuss the indications (including conditions that must be met), contraindications, and administration of aspirin to a patient with chest pain.
  - 19 Discuss the following conditions and how each may lead to a cardiac emergency:
    - a. Coronary artery disease (CAD)
    - b. Aneurysm
    - c. Electrical malfunctions of the heart
    - d. Mechanical malfunctions of the heart
    - e. Angina pectoris
    - f. Acute myocardial infarction (AMI)
    - g. Congestive heart failure (CHF)
  - 20 Discuss the following factors in the chain of survival and how each may contribute to patient survival of cardiac arrest:
    - a. Immediate recognition and activation
    - b. Early cardiopulmonary resuscitation (CPR)
    - c. Rapid defibrillation
    - d. Effective advanced life support
    - e. Integrated post–cardiac arrest care
  - 21 List the skills necessary for the EMT to manage a patient in cardiac arrest.
  - 22 Discuss types of automated external defibrillators (AEDs) and how AEDs work.
  - 23 Discuss the effective coordination of CPR and AED for a patient in cardiac arrest.  
Discuss special considerations for AED use, including general principles, coordination with others, and post-resuscitation care.
  - 24 Discuss the purpose and use of mechanical CPR devices.
  - 25 Consider several possible causes of altered mental status when given scenarios involving patients with alterations in mental status.
  - 26 Describe the basic physiological requirements for maintaining consciousness.
  - 27
  - 28

- 29 Perform primary and secondary assessments on patients with altered mental status.
- 30 Describe the pathophysiology of diabetes and diabetic emergencies.
- 31 Determine a patient's blood glucose level using a blood glucose meter, as allowed by local protocol.
- 32 Develop a plan to manage patients with diabetic emergencies involving hyperglycemia and hypoglycemia. Recognize the signs, symptoms, and history consistent with other causes of altered mental status, including
- 33 seizures, stroke, dizziness, and syncope.
- 34 Given a variety of scenarios involving patients with seizures, search for potential underlying causes.
- 35 Develop a plan to assess and manage patients who are having or who have just had a seizure.
- 36 Explain the causes of strokes.
- 37 Develop a plan to assess and manage patients who are exhibiting signs and symptoms of a stroke.
- 38 Given a scenario of a patient complaining of dizziness or syncope, search for potential underlying causes.
- 39 Develop a plan to assess and manage patients with complaints of dizziness and syncope.
- 40 Differentiate between the signs and symptoms of an allergic reaction and those of an anaphylactic reaction.
- 41 Describe the relationship between allergens and antibodies necessary for an allergic reaction to occur.
- 42 Describe the effects of histamine and other chemicals in producing the signs and symptoms of anaphylaxis.
- 43 List common allergens.
- 44 Prioritize the steps in assessment and management of patients with allergic and anaphylactic reactions.
- 45 Recognize the indications for administering and assisting a patient in the use of an epinephrine auto-injector.
- 46 Describe the desired effects and side effects associated with the administration of epinephrine.
- 47 Demonstrate administration of epinephrine by auto-injector.
- 48 Describe the considerations in reassessment of patients with allergic and anaphylactic reactions.
- 49 Describe the ways in which poisons can enter the body.  
Identify potential dangers to EMS providers and others at scenes where poisoning, alcohol abuse, or substance
- 50 abuse is involved.
- 51 Collect key elements in the history of a patient who has been poisoned.
- 52 Describe the use of activated charcoal in the management of ingested poisons.
- 53 Explain the management of patients who have ingested a poison.
- 54 Develop a plan for managing patients who have inhaled poisons.
- 55 Develop a plan for managing patients who have absorbed poisons through the skin.
- 56 Describe the health risks associated with alcohol abuse.
- 57 Recognize the signs and symptoms of alcohol abuse and alcohol withdrawal.  
Recognize signs, symptoms, and health risks associated with abuse of substances, including stimulants,
- 58 depressants, narcotics, volatile chemicals, and hallucinogens.  
Given a variety of scenarios, develop a treatment plan for patients with emergencies related to alcohol and
- 59 substance abuse.
- 60 Describe the location, structure, and function of the organs in the abdominal cavity.
- 61 Explain the origins and characteristics of visceral, parietal, and tearing pain.

- 62 Associate areas of referred pain with the likely origins of the pain.  
Recognize the common signs and symptoms of abdominal conditions, including appendicitis, peritonitis,  
63 cholecystitis, pancreatitis, ulcers, abdominal aortic aneurysm, hernia, and renal colic.
- 64 Discuss the type of abdominal pain that may indicate cardiac involvement.
- 65 Discuss appropriate assessment and management of patients complaining of abdominal pain.  
Elicit key information in the history of patients complaining of abdominal pain, including history specific to  
66 female patients.
- 67 Recognize behaviors that are abnormal in a given context.
- 68 Discuss medical and traumatic conditions that can cause unusual behavior.  
For a patient whose abnormal behavior appears to be caused by stress, discuss techniques to calm the patient  
69 and gain his cooperation.
- 70 Discuss assessment of a patient who appears to be suffering from a behavioral or psychiatric emergency.
- 71 Discuss the steps in managing a patient presenting with a behavioral or psychiatric emergency.
- 72 Describe factors often associated with risk of suicide.
- 73 Discuss care for a patient who is a potential or attempted suicide.
- 74 Recognize indications that a patient may become violent.
- 75 Explain considerations in using force and restraint when managing behavioral emergency calls.
- 76 Explain considerations when faced with a behavioral emergency patient who refuses treatment and transport.
- 77 Describe the structure and function of the hematologic system.
- 78 Identify medications that can interfere with blood clotting.
- 79 Explain the pathophysiology and complications of sickle cell anemia.
- 80 Discuss assessment and management for patients with emergencies related to sickle cell anemia.
- 81 Describe the structure and function of the renal system.
- 82 Describe the causes and consequences of acute and chronic renal failure.
- 83 Explain the purpose of hemodialysis and peritoneal dialysis.
- 84 Recognize patients with complications of end-stage renal disease, dialysis, and missed dialysis.
- 85 Provide treatment for patients with complications of end-stage renal disease, dialysis, and missed dialysis.
- 86 Describe special considerations for patients who have received a kidney transplant.
- 87 Describe the structure and function of the circulatory system, including the functions of the blood.
- 88 Explain the concept of perfusion.
- 89 Compare and contrast the characteristics of arterial, venous, and capillary bleeding.
- 90 Recognize signs and symptoms of internal and external bleeding.
- 91 Assess and manage patients with internal and external bleeding.
- 92 Demonstrate the control of external bleeding.
- 93 Identify patients at risk for internal bleeding.
- 94 Explain the pathophysiology of shock.
- 95 Relate the signs and symptoms of shock to the body's attempts to compensate for blood loss.

- 96 Describe the different causes of shock.
- 97 Categorize patients as being in compensated or decompensated shock.
- 98 Demonstrate management of patients in shock.
- 99 Describe the structure and function of the skin.  
Describe types of closed soft-tissue wounds and the assessment and management of closed soft-tissue
- 100 wounds.
- 101 Predict injuries that may be indicated by various contusion (bruise) types and locations.
- 102 Describe types of open soft-tissue wounds and general assessment and care for open soft-tissue wounds.  
Describe specific treatment for abrasions and lacerations, puncture wounds, impaled objects, avulsions,
- 103 amputations, and genital injuries.
- 104 Discuss complications associated with burns.
- 105 Classify burns by agent, source, depth, and severity.
- 106 Describe specific treatment for thermal burns and chemical burns.
- 107 Describe assessment and management for electrical burns.
- 108 Describe considerations in the dressing and bandaging of open wounds.
- 109 Describe mechanisms of injury commonly associated with chest injuries.  
Describe specific chest injuries, including flail chest, open chest wounds, pneumothorax, tension  
pneumothorax, hemothorax, hemopneumothorax, traumatic asphyxia, cardiac tamponade, aortic injury, and
- 110 commotio cordis and the assessment and management for each of these specific injuries.
- 111 Discuss mechanisms and types of abdominal injuries.  
Demonstrate the assessment and management of patients with blunt and penetrating abdominal injuries,
- 112 including management of evisceration.
- 113 Describe the anatomy of elements of the musculoskeletal system.
- 114 Associate mechanisms of injury with the potential for musculoskeletal injuries.  
Describe the four types of musculoskeletal injury (fracture, dislocation, sprain, and strain) and define open
- 115 and closed extremity injuries.
- 116 Discuss the assessment of musculoskeletal injuries, including compartment syndrome.
- 117 Discuss the general care of musculoskeletal injuries.
- 118 Describe specific considerations for splinting.
- 119 Discuss considerations in the assessment and management of specific types of injuries, including:
- a. Shoulder girdle injuries
  - b. Pelvic injuries
  - c. Hip dislocation
  - d. Hip fracture
  - e. Femoral shaft fracture
  - f. Knee injury
  - g. Tibia or fibula injury
  - h. Ankle or foot injury

- 120 Describe the components and function of the nervous system and the anatomy of the head and spine.
- 121 Describe types of injuries to the skull and brain.
- 122 Describe the general assessment and management of skull fractures and brain injuries.
- 123 Describe specific concerns in management of cranial injuries with impaled objects.
- 124 Describe specific concerns in management of injuries to the face and jaw.
- 125 Define nontraumatic brain injuries.
- 126 Explain the purpose and elements of the Glasgow Coma Scale.
- 127 Discuss the assessment and management of open wounds to the neck.
- 128 List types and mechanisms of spine injury.
- 129 Discuss the assessment and management of spine and spinal cord injuries.
- 130 Discuss issues in the immobilization of the head, neck, and spine specifically for the following:
  - a. Applying a cervical collar
  - b. Immobilizing a seated patient, including rapid extrication for high-priority patients
  - c. Applying a long backboard
  - d. Rapid extrication from a child safety seat
  - e. Immobilizing a standing patient
  - f. Immobilizing a patient wearing a helmet
- 131 Discuss issues in selective spine immobilization.
- 132 Describe the considerations for teamwork, timing, and transport decisions in assessing and managing patients with multisystem trauma or multiple trauma.
- 133 Discuss the physiologic, anatomic, and mechanism of injury criteria for determining patient severity with regard to trauma triage and transport decisions.
- 134 Recognize special patient considerations that increase the patient's priority for transport, such as age, anticoagulation bleeding disorders, burns, time-sensitive extremity injuries, end-stage renal disorders requiring dialysis, and pregnancy.
- 135 Discuss general principles of multisystem-trauma management.
- 136 Describe the purposes of trauma scoring systems.
- 137 Describe processes of heat loss and heat production by the body.
- 138 Recognize predisposing factors and exposure factors in relation to hypothermia.
- 139 Recognize signs and symptoms of hypothermia.
- 140 Describe the indications, contraindications, benefits, and risks of passive and active rewarming techniques.
- 141 Prioritize steps in assessment and management of patients with varying degrees of hypothermia.
- 142 Discuss assessment and management for early or superficial local cold injury and for late or deep local cold injury.
- 143 Discuss the effects of heat on the human body.
- 144 Differentiate between assessment and management priorities for heat emergency patients with moist, pale, normal-to-cool skin and those with hot skin that is either dry or moist.
- 145 Anticipate the types of injuries and medical conditions that may be associated with water-related accidents.

- 146 Discuss the assessment and management of the following water-related emergencies:
- a. Drowning (including rescue breathing and care for possible spinal injuries)
  - b. Diving accidents
  - c. Scuba-diving accidents
- 147 Describe safe techniques for water rescues and ice rescues.
- 148 Discuss the assessment and management of the following types of bites and stings:
- a. Insect bites and stings
  - b. Snakebites
  - c. Poisoning from marine life
- 149 Identify the anatomy of the female reproductive system and fetal development.
- 150 Explain the physiology of pregnancy.
- 151 Explain and describe measures to prevent or correct supine hypotensive syndrome.
- 152 Describe the three stages of labor.
- 153 Discuss the assessment of a patient in labor, including history and physical examination.
- 154 Discuss how to decide if delivery is imminent or if the patient in labor should be transported to a medical facility for delivery.
- 155 State findings that may indicate the need for neonatal resuscitation.
- 156 Discuss the role of the EMT in normal childbirth, including preparation and delivery.
- 157 Describe the normal steps in care of the neonate.
- 158 Explain the indications and procedures for neonatal resuscitation, following the inverted pyramid order of priorities.
- 159 Discuss after-delivery care of the mother, including delivery of the placenta, controlling vaginal bleeding, and providing comfort to the mother.
- 160 Describe and discuss the special care required for complications of delivery, including:
- a. Breech presentation
  - b. Limb presentation
  - c. Prolapsed umbilical cord
  - d. Multiple birth
  - e. Premature birth
  - f. Meconium
- 161 Describe and discuss the special care required for emergencies in pregnancy, including:
- a. Excessive prebirth bleeding
  - b. Ectopic pregnancy
  - c. Seizures in pregnancy
  - d. Miscarriage and abortion
  - e. Trauma in pregnancy
  - f. Stillbirths

- g. Accidental death of a pregnant woman
- 162 Describe and discuss the special care required for gynecological emergencies, including:
  - a. Vaginal bleeding
  - b. Trauma to the external genitalia
  - c. Sexual assault
- Describe the anatomic and physiologic characteristics of infants and children compared to adults and the
- 163 implications of each for assessment and care of the pediatric patient.
- 164 Discuss the normal vital signs ranges for infants and children.
- 165 Adapt history-taking and assessment techniques to patients in each pediatric age group.
- 166 Discuss special considerations in dealing with adolescent patients.
- Discuss the importance of involving caretakers in the assessment and emergency care of pediatric patients and
- 167 anticipate reactions of parents and caregivers in response to an ill or injured child.
- 168 Discuss the use of the pediatric assessment triangle in assessing pediatric patients.
- Explain special aspects of the steps of assessment for pediatric patients, including the scene size-up, primary
- 169 assessment, secondary assessment with physical exam, and reassessment.
- Demonstrate adaptations to techniques and equipment to properly manage the airway, ventilation, and
- 170 oxygenation of pediatric patients.
- 171 Compare and contrast the causes, presentation, and management of shock in pediatric and adult patients.
- 172 Recognize the particular concern for preventing heat loss in pediatric patients.
- Recognize the signs, symptoms, and history associated with common pediatric medical emergencies,
- 173 including:
  - a. Difficulty breathing
  - b. Croup
  - c. Epiglottitis
  - d. Fever
  - e. Meningitis
  - f. Diarrhea and vomiting
  - g. Seizures
  - h. Altered mental status
  - i. Poisoning
  - j. Drowning
  - k. Sudden infant death syndrome (SIDS)
- 174 Discuss injury patterns common in pediatric trauma patients.
- 175 Discuss care for burns in pediatric patients.
- Recognize indications of child abuse and neglect, and explain your ethical and legal responsibilities when you
- 176 suspect child abuse or neglect.
- Manage pediatric patients with special challenges, including those dependant on tracheostomy tubes, home
- 177 artificial ventilators, central intravenous lines, gastrostomy tubes, and shunts.
- 178 Describe common changes in body systems that occur in older age.

- 179 Discuss adaptations that may be required in communicating with and assessing older patients.  
Discuss the need for awareness of and the special considerations regarding medical conditions and injuries to  
which older patients are prone, including effects of medications, shortness of breath, chest pain, altered mental  
status, gastrointestinal complaints, dizziness/weakness/malaise, depression/suicide, rash, pain, flulike  
180 symptoms, and falls, and the possible significance of general or nonspecific complaints in older adults.
- 181 Recommend changes to improve safety in the home of an elderly person.
- 182 Discuss possible indications of elder abuse.
- 183 Discuss psychosocial concerns of older patients, including the fear of loss of independence.  
Describe special challenges patients may have, including various disabilities, terminal illness, obesity,  
184 homelessness/poverty, and autism.
- 185 Describe general considerations in responding to patients with special challenges.  
Recognize physical impairments and common medical devices used in the home care of patients with special  
challenges, including respiratory devices, cardiac devices, gastrourinary devices, and central IV catheters, and  
186 discuss EMT assessment and transport considerations for each.
- Explain why patients with special challenges are often especially vulnerable to abuse and neglect and what the  
187 EMT's obligations are in such situations.
- 188 Recognize the four types of ambulances currently specified by the U.S. Department of Transportation.
- 189 Describe the types of equipment required to be carried by EMS response units.
- 190 Describe the components of the vehicle and equipment checks done at the start of every shift.
- 191 Describe the roles and responsibilities of the Emergency Medical Dispatcher.
- 192 Discuss the principles of safe ambulance operation while responding to the scene.
- 193 Explain laws that typically apply to ambulance operations.
- 194 Discuss how to maintain safety at highway incidents.
- 195 Describe the steps necessary for transferring the patient to the ambulance.
- 196 Describe the EMT's responsibilities while transporting a patient to the hospital.
- 197 Describe the EMT's responsibilities when transferring care of patients to the emergency department staff.  
Describe the EMT's responsibilities in terminating the call and readying the vehicle for the next response after  
198 a call and returning to quarters.
- Identify when and how to call for air rescue, how to set up a landing zone, and how to approach a helicopter  
199 when assisting with an air rescue.
- 200 Anticipate situations in which hazardous materials may be involved.  
Describe the roles in hazardous materials response of providers trained at each of the four levels of hazardous  
201 materials training specified by OSHA.
- 202 Describe the responsibilities of the EMT at a hazardous materials incident.  
Given a description of a hazardous materials incident, identify the safe and danger zones and then the hot,  
203 warm, and cold zones.
- Explain how to identify specific hazardous materials using the NFPA 704 and Department of Transportation  
204 placard systems, packaging labels, invoices, bills of lading, shipping manifests, and safety data sheets.
- Identify sources of information on initial actions to take once the hazardous material has been identified,  
205 including the Emergency Response Guidebook, hotlines, and poison control centers.



- 206 Discuss how to establish a treatment area and decontamination and care for patients at a hazardous materials incident.
- 207 Describe multiple-casualty incident operations.
- 208 Describe the principles and features of the Incident Command System.
- 209 Describe the principles of primary triage, secondary triage, and the START triage system.
- 210 Discuss transportation and staging logistics at a multiple-casualty incident.
- 211 Recognize the psychological aspects of multiple-casualty incidents for patients and responders.
- 212 Describe the risks to EMS providers during highway emergency operations.
- 213 Given a variety of highway response scenarios, describe how to create as safe a work area as possible.
- 214 Discuss particular considerations in ensuring safety during night operations.
- 215 List the ten phases of vehicle extrication and rescue operations.
- In a rescue situation, recognize and manage hazards by wearing appropriate protective gear, safeguarding your patient, managing traffic, safely dealing with deployed air bags and energy-absorbing bumpers,
- 216 managing spectators, and exercising safe practices around electrical hazards.
- Describe actions taken at a rescue scene by those trained to do so regarding control of vehicle fires, stabilizing a vehicle, and gaining access to patients.
- 217 List the “CBRNE” agents, also called weapons of mass destruction, that are often involved in terrorist incidents.
- 218
- 219 Describe the risks to first responders in terrorism incidents.
- Discuss clues, such as occupancy or location, type of event, timing of events, and on-scene warning signs that help with identification and provision of information sharing to intelligence fusion centers of suspicious situations.
- 220
- 221 Given a scenario involving a terrorism incident, predict the types of harm that may occur.
- Discuss the principles of time, distance, and shielding that may minimize exposure to harm from terrorism incidents.
- 222
- 223 Discuss types of harm and self-protection measures for each of the following:
- a. Chemical incident
  - b. Biological incident
  - c. Radiological/nuclear incident
  - d. Explosive incident
- 224 Discuss how chemical and biological agents can be disseminated and weaponized.
- 225 Describe the characteristics associated with the following:
- a. Chemical agents
  - b. Biological agents
  - c. Radiological/nuclear devices
  - d. Explosive/incendiary devices
- 226 Describe blast injury patterns and treatment for blast injuries.
- 227 Discuss strategy, tactics, and self-protection with regard to a terrorist incident.

**PUBLIC SAFETY TELECOMMUNICATIONS- 44220 (.5 Credit) (Certification Course, Instructor must hold certification)**

1. Describe the duties and job requirements of a Public Safety Telecommunicator.
2. Explain the importance of ethics and values in Public Safety Communications.
3. Explain the Communications Cycle and discuss the need for good verbal, non- verbal and listening skills in customer service and emergency communications.
4. Demonstrate the techniques for gathering basic and descriptive information.
5. Define Call Processing and list the Basic Call Processing Techniques.
6. Utilize proper 9-1-1 Telephony Terminology.
7. Compare and contrast Basic 9-1-1, Enhanced 9-1-1, and Wireless E 9-1-1
  
8. Explain and discuss Voice over Internet Protocol (VoIP).
9. Demonstrate use of TTY terminology and equipment.
10. Define Telematics.
11. Demonstrate proper response for:
  - a) Emergency with voice calls
  - b) Airbag/Telemetry Activation, No Voice calls
  - c) Emergency Button Activation, No Voice calls
12. Define and describe a Computer Aided Dispatch (CAD) System.
13. Demonstrate ability to use 24 hour time.
14. Demonstrate Radio Telecommunications Techniques.
15. Demonstrate use, care and maintenance of Radio Equipment.
16. Describe various call classifications and describe differences between:
  - a) Law Enforcement Call Types
  - b) Fire Service Calls
  - c) EMS Calls
17. Explain the National Incident Management System (NIMS).
18. Describe the concepts and principles of the Incident Command System.
19. Provide an overview of Civil Liability Law.
20. Explain confidentiality rules and liability in call handling.
21. List ways to minimize liability risks.
22. Describe ways to reduce mental and physical stress.

**LPSS INTERNSHIP – 44298 (.5 credit)**

1. Demonstrate ability to access and utilize industry resources.
2. Utilize effective time management techniques to organize workflow.
3. Research and discuss modern and future trends in equipment, methods and techniques.
4. Utilize appropriate materials and processes to meet client needs.
5. Demonstrate ability to manage and set project goals and timelines.
6. Utilize appropriate grammar and word usage in the performance of job duties.
7. Research and report on career opportunities in LPSS.
8. Demonstrate adherence to dress code policies.
9. Demonstrate adherence to and completion of all requirements of the internship-both in curriculum and fieldwork.
10. List personal safety precautions needing to be followed during emergency responses, at emergency incidents, at the internship location and outside the

workplace.

11. Describe steps involved in communicating with dispatchers and other agency personnel in emergency and non-emergency situations by phone, radio and in written reports.
12. Describe the characteristics and organizations of the incident command system.
13. Use tools and equipment safely and appropriately.
14. Define hazardous materials and adhere to all regulations regarding handling of hazardous materials.
15. Demonstrate a development of analytical skills, including the ability to frame critical questions research problems, weigh alternatives and present evidence to support conclusions and recommendations.
16. Demonstrate appropriate coping and negotiations skills in order to work with people more effectively.
17. Gain first-hand knowledge and a greater understanding of an LPSS agency; including the administrative functions and the community forces which affect its organization and operation.
18. Demonstrate a mature understanding of people, their needs, attitudes, feelings and behaviors.
19. Demonstrate knowledge of the requirements for licensure in the LPSS fields.